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for Ills. Cent. C.

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OCTOBER TERM, A. D. 1900.

No. 198.

THE PEOPLE OF THE STATE OF ILLINOIS,
vs. Appellants,
ILLINOIS CENTRAL RAILROAD COMPANY AND CITY
OF CHICAGO, Appellees.
Appeal from the United States Circuit Court of
Appeals for the Seventh Circuit.

BRIEF ON BEHALF OF ILLINOIS CENTRAL RAILROAD COMPANY.

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For Illinois Central Railroad Company.

J. M. DICKINSON,
Of Counsel.



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STATEMENT.

This litigation was commenced by the attorney general of the State in 1883. The object of the suit was to obtain a judicial determination of the rights of the parties in respect of certain lands on the east or lake front of the City of Chicago, situated between the mouth of the Chicago river and the foot of Sixteenth street, which had been reclaimed from the lake and were occupied by the works of the Railroad Company; and also in respect of a tract of submerged land adjacent to its works, which had been granted to the Railroad Company by an act of the State Legislature passed in 1869.

The case has been before this court once before (at the October term, 1892), on an appeal from the original decree of the Circuit Court, and is reported, as then presented, in 146 U. S. Reports, page 387. The decree was modified to some extent, and the cause remanded for the further investigation of certain particular questions of fact specified. *Except as modified in the particulars mentioned, the decree of the Circuit Court was affirmed.*

The modification made, and the object and scope of the investigation ordered, clearly appear in the following extracts from the mandate of this court to the Circuit Court, dated April 10, 1893, which appears on pages 519 to 527 of the printed record:

"Whereas lately in the Circuit Court of the United States for the Northern District of Illinois * * in a cause between the People of the State of Illinois, complainants, and the Illinois Central Railroad Company, the United States of America and the City of Chicago, defendants, * * wherein the decree of the said Circuit Court is in the following words, viz.: * * *

"And the court doth further find and declare, and it is hereby adjudged and decreed:

"That the Illinois Central Railroad Company is the owner in fee of all the wharves, piers and other structures erected by it in the City of Chicago, east of Michigan avenue, south of Chicago river, and north of the north line of Randolph street, extended eastwardly as shown upon said Morehouse map*, including the station grounds lying west of the slip C, the pier marked C, lying east of slip C, and represented upon the Morehouse map to have been built in 1867, and piers 1, 2 and 3, lying east of pier C last mentioned, and represented upon said map to have been built as follows: Pier 1 in 1872 and 1873, pier 2 in 1881, and pier 3 in 1880, and is also entitled to the use, for the purposes of its business, of the slips marked on said Morehouse map.

"That said company is likewise the owner in fee of all the wharves, piers and other works made and constructed by it in the City of Chicago, east of its main tracks, between the north line of block 23, in fractional section 15 addition to Chicago, and the center line of Sixteenth street extended, including the pier or line of piling represented upon the said Morehouse map to have been built in 1870, and the station

*Map numbered 3 in the Book of Exhibits forming part of the printed record. It is referred to in the opinion of Mr. Justice HARLAN, filed in said cause February 23, 1888, and is made part of the decree by reference.

grounds lying west of the said pier and contiguous thereto; also of the wharf or pier projecting into the lake from the grounds last mentioned, and represented upon the said Morehouse map to have been built in 1885, which said wharves, piers and other works so constructed and so far as constructed by the said Illinois Central Railroad Company, as aforesaid, are lawful structures and not encroachments upon the domain of the State of Illinois or upon the public right of navigation, or upon the property interests or estate of the said City of Chicago.

"And the court doth further find and declare, and it is hereby adjudged and decreed, that the third section of the act of the general assembly of the State of Illinois, passed over the governor's veto April 16, 1869, entitled, 'An Act in relation to a portion of the submerged lands and Lake park grounds lying on and adjacent to the shore of Lake Michigan, on the eastern frontage of the City of Chicago,' so far, at least, as it confirms 'the right of the Illinois Central Railroad Company under the grant from the State in its charter, * * * and under and by virtue of its appropriation, occupancy, use and control, and the riparian ownership incident to such grant, appropriation, occupancy, use and control in and to the lands, submerged or otherwise, lying east of the said line running parallel with and four hundred feet east of the west line of Michigan avenue in fractional sections ten and fifteen,' is a valid and constitutional exercise of legislative power and legalizes as well what was done by said company prior to April 16, 1869, in the way of filling in the lake and constructing wharves, piers, tracks, warehouses and other works between the Chicago river and the north line of Randolph street extended eastwardly, as its occupancy and use for way ground of the two said triangular pieces of ground immediately south of Randolph street; and that the subsequent act of the general assembly of Illinois, passed April 15, 1873, in so far as it sought by repealing the said act of April 15 (16), 1869, to revoke or annul said confirmatory clause of the last-named act, was void under the constitution both of Illinois and of the United States; but

the court is of opinion, and so adjudges and decrees, that the said act of April 15, 1873, repealing said act of April 16, 1869, had the effect in law to withdraw from said railroad company the grant to it, its successors and assigns, by the third section of said act of April 15 (16), 1869, of 'all the right and title of the State of Illinois in and to the submerged lands constituting the bed of Lake Michigan and lying east of the tracks and breakwater of the Illinois Central Railroad Company for the distance of one mile, and between the south line of the pier extended eastwardly and a line extended eastward from the south line of lot twenty-one, south of and near to the round-house and machine shops of said company, in the south division of said City of Chicago;' and to reinvest the State with such right and title as it had in and to said premises prior to the passage of said act of April 16, 1869; and said repealing act had the further effect to withdraw from said company the additional power conferred upon it by said act of April 16, 1869, to improve the harbor of Chicago, and to engage in the business of constructing and maintaining wharves, piers and docks for the benefit of commerce and navigation generally, and, not in the prosecution of its business, as defined and limited by its original charter and the laws of the State, saving, however, to said company as unaffected by said repeal the right to hold and use as part of its way ground or right of way, and not otherwise, the before mentioned part of the submerged lands east of its breakwater between Monroe and Washington streets extended eastwardly, which was reclaimed from the lake in 1873, presumably upon the faith of the act of 1869, and is marked on the Morehouse map with the words 'built 1873.'

"It is further ordered, adjudged and decreed that the defendant, the Illinois Central Railroad Company, be, and it is hereby perpetually enjoined and restrained from erecting structures or in filling with earth or other materials any portion of the bed of Lake Michigan as it now exists and as shown on said Morehouse map east or in front of said fractional sections ten and fifteen—that is, east or in front of

the grounds now occupied and used by it between Chicago river and the north line of Randolph street extended eastwardly, or east or in front of the grounds now occupied and used by it between the north line of Randolph and the center line of Sixteenth street, each extended eastwardly, except that said company may complete the slip or basin already commenced immediately north of Sixteenth street extended, with a wharf on each side of it not exceeding one hundred feet in width each, where vessels coming into such slip or basin may load and unload, and upon which tracks of the company may be laid.

"As by the inspection of the transcript of the record of the said Circuit Court, which was brought into the Supreme Court of the United States by virtue of separate appeals taken by The Illinois Central Railroad Company, The City of Chicago, and The People of the State of Illinois, agreeably to the act of Congress in such case made and provided, fully and at large appears.

"And whereas, in the present term of October, in the year of our Lord one thousand eight hundred and ninety-two, the said cause came on to be heard before the said Supreme Court on the said transcript of record on separate appeals and was argued by counsel.

"On consideration whereof it is now here ordered, adjudged and decreed by this court, that the State of Illinois is the owner in fee of the submerged lands constituting the bed of Lake Michigan, which the third section of the act of April 16, 1869, purported to grant to the Illinois Central Railroad Company, and that the act of April 15, 1873, repealing the same, is valid and effective for the purpose of restoring to the State the same control, dominion and ownership of said lands that it had prior to the passage of the act of April 16, 1869.

"But the decree below, as it respects the pier, commenced in 1872, and the piers completed in 1880 and 1881, marked 1, 2 and 3, near Chicago river, and the pier and docks between and in front of Twelfth and Sixteenth streets, is modified so as to direct the court below to order such inves-

tigation to be made as may enable it to determine whether those piers erected by the company by virtue of its riparian proprietorship of lots formerly constituting part of section ten, extend into the lake beyond the point of practical navigability, having reference to the manner in which commerce in vessels is conducted on the lake; and, if it be determined upon such investigation that said piers, or any of them, do not extend beyond such point, then that the title and possession of the railroad company to such piers shall be affirmed by the court; but if it be ascertained and determined that such piers, or any of them, do extend beyond such navigable point, then the said court shall direct the said pier or piers to the excess ascertained to be abated and removed, or that other proceedings relating thereto be taken on the application of the State as may be authorized by law; and also to order that similar proceedings be taken to ascertain and determine whether or not the pier and dock constructed by the railroad company in front of the shore between Twelfth and Sixteenth streets extend beyond the point of navigability and to affirm the title and possession of the company if they do not extend beyond such point, and if they do extend beyond such point to order the abatement and removal of the excess, or that other proceedings relating thereto be taken on application of the State as may be authorized by law.

"Except as modified in the particulars mentioned, the decree in each of the three cases on appeal must be affirmed with costs against the railroad company.

"You, therefore, are hereby commanded that such execution and further proceedings be had in said cause in conformity with the opinion and decree of this court as according to right and justice and the laws of the United States ought to be had, the said appeals notwithstanding."

The mandate having been filed in the Circuit Court and the cause re-docketed for further proceedings "in conformity with the opinion and decree of the Supreme Court," the case was referred to a master in chancery to take testimony and

report the same. (Rec., 529-531.) The evidence reported by the master fills 476 pages of the present printed record (pages 532-1007), and some additional documentary evidence, covering 43 pages (Rec., 1015-1058,) was introduced by consent at the hearing.

The cause was heard before the late Circuit Judge Showalter, upon the evidence above referred to and the proofs taken prior to the first decree and preserved in the original record; and the decision of the court was that the piers and docks referred to in the judgment and mandate of the Supreme Court, in respect of which the further proceedings had been ordered, did not extend, nor did either of them extend, into the lake beyond the line of practical navigability, having reference to the manner in which commerce in vessels was conducted on the lake. It was therefore ordered, adjudged and decreed that the title and possession of the Illinois Central Railroad Company to the said piers and docks, and each of them and every part thereof, be affirmed. (Rec., 1010-1013.)

An appeal from that decree was taken, in the name of the complainants, to the United States Circuit Court of Appeals for the Seventh Circuit; where the cause afterwards came on to be heard before the Honorable William A. Woods, Circuit Judge, James G. Jenkins, Circuit Judge, and Peter S. Grosscup, then District Judge. The decree entered in the Circuit Court was affirmed; and the case now comes before this court on appeal from that judgment.

From this it appears that the questions involved are questions of fact only. The evidence is voluminous, but cannot be said to be either conflicting or inconclusive. Two courts have passed upon it and decided the issues in the same way; and the question here is whether the concurrent decisions of those two courts shall be permitted to stand.

The complainants' counsel brings the case here and relies mainly, in his brief and argument, upon the point, also pertinaciously insisted on in the courts below, that this court made

a mistake in its former decision that the works in question were lawful structures, and not encroachments upon the domain of the State, if they do not, and so far as they do not, extend "beyond the line of practical navigability, having reference to the manner in which commerce in vessels is conducted on the lake."

It was the opinion of all the judges in the courts below that this was a field of discussion into which they were not permitted to enter, but that their duty was limited to the consideration of the particular questions of fact which had been sent back to be further investigated and determined by the Circuit Court. Any other conclusion would open the whole record, and permit a reconsideration of every question apparently concluded by the former judgment of this court.

I.

A PRELIMINARY QUESTION.

It is not disputed that the right of the Railroad Company to construct and retain possession of the works in question was directly involved in this very case when it was before the court on the former appeal. Nor is it denied that it was then decided that the works were lawful structures and not encroachments upon the domain of the State or the public right of navigation, if they do not, and so far as they do not, extend "beyond the point of practical navigability, having reference to the manner in which commerce in vessels is conducted on the lake."

But the appellants are now represented by other counsel, and the argument they have filed starts out with the modest assumption that the former judgment of the court was a mistake and no respect need be paid to it. In support of this theory it is said that "the question of how far the title of a riparian owner extends is one of local law," and that "the common law is by statute the law governing riparian rights in

Illinois." At this stage of the case, as we respectfully insist, that question has ceased to be practical, and any discussion of it would be wholly irrelevant. But attention may properly be called to the fact, that at the first hearing of this case in the Circuit Court the testimony of several witnesses was introduced by the eminent counsel then representing the City, in proof of the existence of a long prevailing custom or usage, which had been uniform and universal, not only in Illinois, but in all the States bordering upon the great lakes, permitting the riparian proprietor to erect and maintain wharves and piers in the lake in front of his land on the shore, wherever they could be made useful for commercial purposes. (Testimony of J. Y. Scammon, Fernando Jones and Stephen A. Douglas, Printed Rec., 391-394, 401-404, 406.) This evidence was not introduced by the Railroad Company, but in behalf of the City of Chicago, and—the fact being undisputed—no attempt was made by either party to refute or contradict it. What effect evidence of this character should have in determining the law on the subject, is not here a material question, and we do not discuss it. That such a right, however, may spring from usage, in the absence of prohibitory legislation, is apparently conceded in both the recent cases of *Shively v. Bowlby* (152 U. S., 1, 14), and *Revell v. The People* (177 Ill., 468, 484).

north of the south line of Lot 2,
 1 It is furthermore to be observed that every foot of the land, occupied by the wharves and piers in question was included in the grant of the submerged land, part of the bed of Lake Michigan, made by the State to the Railroad Company in the third section of the legislative act of April 16, 1869. (Rec., 526.) It was held by a majority of the judges sitting in the case at the former hearing—four judges to three—to be competent for the legislature to revoke so extensive a grant of the submerged land, and that it had in effect been revoked by the repealing act of April 15, 1873. But it is shown that some of the wharves and piers had been completed before the repealing act was passed.

We may also be permitted perhaps to suggest that the common law adopted by statute in Illinois is "the common law of England, so far as the same is applicable and of a general nature" (Ill. Rev. Stat., Chap. 28); and in *Fuller v. Shedd* (161 Ills., 462, 489), it is said, "The large fresh water lakes bordering this State present conditions *wholly unprovided for by the common law of England.*" We find also in *Hardin v. Jordan* (140 U. S., 371, 395) authority for the similar statement, that "all the cases in which waters above the ebb and flow of the tide, such as great inland lakes and the larger rivers of the country, are held to be public in any other sense than as being subject to a servitude to the public for purposes of navigation, are confessedly a *departure from the common law.*" As all the authorities are in agreement on this point, is it not a mistake to suppose that in Illinois the rights of shore owners on Lake Michigan are governed by the English common law? In determining the rights of riparian proprietors on even the smaller interior lakes of the State, the rules of the common law have been rejected in the State court, although those rules have not been repealed by legislation and there has been no statutory regulation on the subject. As pointed out in *Hardin v. Jordan*, *supra*, it has been decided by the highest judicial authority in the British Empire that the crown has no *de jure* right to the soil of an inland lake, and that there is no rule of law which would disconnect that soil from the private ownership of riparian proprietors. That decision was approved and followed by this court in the case last cited—an Illinois case,—in which it was held that under a grant of lands bounded on a lake or pond which is not tide water and is not navigable, the grantee takes to the center of the lake or pond, ratably with other proprietors if there be such. In the subsequent case of *Fuller v. Shedd*, in the State court, the authority of both this court and of the English courts was rejected, and the rule laid down that the grantee in such case takes only to the edge of the water.

Further observations on this subject are not called for; but it may not be amiss to remark that whatever deference may hereafter be paid in the Federal Courts to the decision in *Fuller v. Shedd*, the judgment of this court in *Hardin v. Jordan* is none the less binding on the parties to that suit, because a similar question in another case has since been decided differently by the State Court.

It is equally clear that whatever was presented and decided on the former appeal in this case has become *res adjudicata*, and the same matter between the same parties cannot be reopened and subsequently considered. The judgment of this court became the settled law of the case, and it was the duty of the Circuit Court to carry it into execution according to the mandate. That court could not (to use the language of the opinion in *ex parte Sibbald v. The United States*, 12 Peters, 488, 491), "vary it, or examine it for any other purpose than execution; or give any other or further relief; or review it upon any matter decided on appeal for error apparent; or intermeddle with it, further than to settle so much as had been remanded." Nor will this court upon a second appeal review that judgment. As was said in *Roberts v. Cooper* (20 How., 467, 481), "there would be no end to a suit if every obstinate litigant could, by repeated appeals, compel a court to listen to criticisms on their opinions, or speculate on chances from changes in its members." Were such a practice generally tolerated, the effect would be to undermine the basis of judicial authority and bring the decisions of courts into derision. Attempts have been frequently made to transgress or evade the rule, but on no point have the decisions of this court been more inflexible or emphatic. *Himely v. Rose*, 5 Cranch., 313; *Skillern's Executors v. May's Executors*, 6 Cranch., 267; *Martin v. Hunter's Lessee*, 1 Wheat., 304, 355; *Browder v. McArthur*, 7 Wheat., 58; *The Santa Maria*, 10 Wheat., 431; *Sibbald v. The United States*, 12 Pet., 488; *West v. Brashear*, 14 Pet., 51; *Washington Bridge Co. v. Stewart*, 3 How., 413;

Chaires v. The United States, 3 How., 611; *Corning v. The Troy Iron and Nail Factory*, 15 How., 451, 466; *Sizer v. Many*, 16 How., 98; *Peck v. Sanderson*, 18 How., 42; *Roberts v. Cooper*, 20 How., 467; *Whyte v. Gibbes*, 20 How., 541; *Ex parte Dubuque & Pacific Railroad*, 1 Wall., 69; *Noonan v. Bradley*, 12 Wall., 121, 129; *Tyler v. Magwire*, 17 Wall., 253; *Supervisors v. Kennicott*, 94 U. S., 498; *The Lady Pike*, 96 U. S., 461; *Stewart v. Salamon*, 97 U. S., 361; *Clark v. Keith*, 106 U. S., 464; *Chaffin v. Taylor*, 116 U. S., 567; *In re Washington & Georgetown Railroad Co.*, 140 U. S., 91; *Northern Pacific Railroad Co. v. Ellis*, 144 U. S., 458, 464; *Gaines v. Rugg*, 148 U. S., 228, 241; *In re Sanford Fork and Tool Co.*, 160 U. S., 247; *Great Western Telegraph Co. v. Burnham*, 162 U. S., 339, 343-4; *In re Potts, Petitioner*, 166 U. S., 263; *Thompson v. Maxwell Land Grant Co.*, 168 U. S., 451.

To the extent, therefore, to which the former judgment goes, the rights of the parties have been finally settled. They cannot be treated as open to discussion or controversy in any subsequent stage of the litigation. Both parties are concluded by the former judgment. This is a fundamental principle, and necessarily precludes any assumption, and every contention that the facts or the law bearing on any question decided are not what they have been adjudged to be by the court.

No attention will be paid, therefore, in this brief to the assaults which have been made on the former judgment of the court in the voluminous argument filed by counsel for the appellants. We had no reason to feel particularly pleased with that judgment; but it has never been supposed by counsel for the Railroad Company that their client could accept such parts of the judgment as were satisfactory to it, and be permitted afterwards to dispute the rest. It is and has been their understanding that as to the issues decided the judgment is an absolute bar to any further dispute between the parties. The only question left for consideration on this appeal is the question

remanded to the Circuit Court for further investigation. That is purely a question of fact, turning, like all other questions of fact, upon a just and reasonable view to be taken of the evidence pertinent to that issue contained in the record.

II.

THE MANNER IN WHICH COMMERCE IN VESSELS IS CONDUCTED ON THE LAKE.

An inquiry into the facts pertaining to this subject forms a material and very essential part of the investigation directed by the mandate. The object of the inquiry was, obviously, to ascertain what depth of water is required at a wharf or dock in the harbor of Chicago to furnish reasonable accommodations for loading and unloading vessels engaged in lake navigation. There should be no confusion on this point. The directions of this court on the former appeal could hardly be more explicit; but had they been less unequivocal, common sense would teach us that such conveniences as wharves and docks, if supplied at all, should be adapted to the size and draught of the vessels employed. To serve a useful purpose, a wharf must reach water of sufficient depth to float vessels when laden. They must of necessity—to use the expression of Mr. Justice Miller in *Atlee v. Packet Company*, 21 Wall., 393—"occupy a part of the stream (or lake) over which a vessel could float if they were not there." "Small boats," it has been pithily said in a Michigan case,* "can land where large ones do, but large boats cannot go where small ones can. It would be absurd to apply rules to the enjoyment of rights of navigation, as if canoes and scows instead of ships and steamers did the business of the country." The right sustained in the former judgment was a substantial right—a right of practical value; and everything said in the opinion of the court repels the acceptance of the extravagant notion that the remanding order is susceptible

* *Ryan v. Brown*, 18 Mich., 209.

of a construction which would permit the wharves and piers constructed by the Railroad Company, or essential parts of them, to be demolished, if they extend no farther into the lake than is necessary to furnish suitable accommodations to the class of vessels now employed in carrying on the principal part of the lake traffic.

Upon the point here referred to considerable testimony has been taken. Eight witnesses were interrogated on the subject before the master—James S. Dunham (Rec., 573-598), John Prindiville (Rec., 721-756), William Harmon (Rec., 757-784), Edward Van Dolson (Rec., 784-793), William M. Brown (Rec., 794-803), W. I. Babcock (Rec., 804-816), William L. Marshall (Rec., 888-904) and Redmond Prindiville (Rec., 906-922)—and there is substantial agreement in their testimony. There is no dispute as to the essential facts.

The testimony of two witnesses (John and Redmond Prindiville) goes back as far as 1836. At that time, it is said, the average capacity of vessels on the lake was about 100 tons. Some of them, noted for being very large, would carry 200 tons. In 1840 to 1845 scarcely a vessel afloat carried more than 10,000 bushels of wheat (about 300 tons). In 1847 a vessel came out that carried 18,000 bushels of corn—the largest vessel on the lake at that time. Since then the tonnage of vessels has been steadily increasing.

In 1858, 1859 and 1860, it appears that grain vessels were in use whose capacity was from 15,000 to 20,000 bushels. Their draft was from ten to twelve and one-half feet. One carrying 25,000 bushels was a very large vessel.

In 1869 a vessel of 13 feet draft was not of unusual size. Some were in use drawing 14 feet; but these, with a full load, would sometimes ground on the St. Clair flats. In 1870 vessels carrying 50,000 bushels of wheat were considered large vessels. The tonnage of such a vessel is about 1,500 tons; and 14 feet is a light draft for a vessel of that size with that cargo.

For several years past vessels carrying 100,000 bushels of corn have not been considered of extraordinary size. The major part of those now employed in that trade will carry from 112,000 to 130,000 bushels. Some of the larger propellers will carry 160,000 bushels of corn. These vessels draw from 16 to 18 feet of water.

The lumber business of the lake is carried on in large measure by sailing vessels, drawing on an average $10\frac{1}{2}$ to 11 feet of water. But we are told by Major William L. Marshall (for several years since 1888 in charge of the harbor improvements at Chicago) that the *main commerce of the lakes is carried on by large metal steamers*. The tonnage of these vessels varies from 1,000 or 1,200 tons up to 3,000 tons. It appears from the testimony of other witnesses that some are built to carry from 4,000 to 5,000 tons.

The tendency of late years has been, as Major Marshall testifies, to a very material increase in size. The average tonnage of vessels coming into Chicago has doubled in ten years.

The draft of the large-sized propellers that come to Chicago, as Major Marshall points out, is limited by the tunnels under the river. They cannot go over the tunnels drawing more than 16 feet (some of the witnesses say 16 feet 8 inches), but a great many of them are built so they can be loaded down to 18 or 19 feet. There are no commercial facilities, this witness states, for loading or unloading such vessels at Chicago unless it can be done at the mouth of the river. There is a depth of 18 to 20 feet (obtained by dredging) at the mouth of the river against the ends of some of the Illinois Central piers and some of the Peshtigo docks; beyond that there are no facilities for carrying on commerce by these large vessels in Chicago harbor. Chicago, according to this witness, is a third class port in respect of depth of water; but in point of commercial business, second in the United States.

The tunnels referred to by Major Marshall are those built by the City under the river at Washington street and La Salle

street. The Washington street tunnel was completed in 1866 or 1867. The intention was to depress it low enough to admit of a channel over it of 14 feet depth at low water, or 15 or 15½ feet at a full stage of water in the lake.

The La Salle street tunnel was commenced, it appears, in 1869, and was completed in 1871. The depth of water over the Washington street tunnel had been found insufficient; vessels frequently grounded in passing over it. It was therefore decided to sink the La Salle street tunnel one or two feet lower. At a full stage of water there is a narrow channel over it, in the middle of the river, of about 16 feet 8 inches. Both tunnels slope down towards the center and rise towards the shore. This tunnel is about three-fourths of a mile above the mouth of the river.

Some years after the Washington street tunnel was built it was reconstructed and lowered so as to give a channel over it of the same depth as that over the La Salle street tunnel. Vessels loaded to the depth of sixteen feet eight inches can now pass over the center of both tunnels at a full stage of water, which is one foot and eight-tenths above Chicago datum.

The works prosecuted by the government to improve and deepen the channels and passages over the St. Clair flats, and between Lake Superior and Lake Michigan, furnish very striking evidence of the necessity which has been felt for many years, and the constant tendency which has been manifest, to employ vessels of greater draft and tonnage in lake navigation. All the commerce to and from Lake Superior passes through the "Soo Canal," and when this testimony was taken the draft to which vessels could be loaded was limited to the depth of the lock in use since 1881, which is fourteen and seven-tenths feet above the mitre-sills. The government had then just completed there a twenty-foot channel, and a Canadian lock had also been built, giving a depth of seventeen feet. (Rec., 551, 811.) The canal at St. Clair flats was dredged

at first to a depth of nine feet, which was increased to twelve and then to sixteen feet, and the government, when the testimony was taken, was just completing a twenty-one foot channel. Vessels drawing eighteen feet had then no difficulty in sailing from Buffalo to Chicago. (Rec., 552, 557.)

In 1892 an appropriation of \$375,000 was made by Congress for a ship channel 20 and 21 feet in depth, with a minimum width of 300 feet in the shallows of the connecting waters of the Great Lakes between Chicago, Duluth and Buffalo; and the Secretary of War was authorized to enter into contracts to carry out the plans proposed for a ship channel, to be paid for as appropriations might from time to time be made, not to exceed in the aggregate \$2,965,000, exclusive of the amount then appropriated. (27 U. S. Stat., 108.)

Appropriations have been made for the new lock and other improvements in Sault Ste. Marie river, since 1881, as follows:

1882, (22 U. S. Stat., 207)	\$ 200,000
1884, (23 <i>Idem</i> , 143)	125,000
1886, (24 <i>Idem</i> , 324)	250,000
1886, (" " ")	150,000
1888, (25 " 418)	500,000
" (" " ")	1,000,000
1890, (26 " 447)	900,000
" (" " ")	400,000
1891, (" " 977)	600,000
" (" " 977)	300,000
1892, (27 " 377)	115,000
1893, (27 " 602)	500,000
" (" " ")	1,230,000
1894, (28 " 404)	150,000
" (" " ")	300,000
1895, (" " 947)	483,865
Total	\$7,203,865

Prior to 1864 all vessels of ordinary size entering or leaving the Chicago river were obliged to follow a circuitous channel

from a point nearly opposite the foot of Van Buren street to the mouth of the river, to avoid a sand bar in the lake which prevented more direct access to the river. It was on this sand bar that the government breakwater was afterwards built which now forms the exterior line of the outer harbor. The passage was difficult and sometimes dangerous. In 1864, or about that time, the government excavated a direct channel fourteen feet or more in depth across the sand bar, which was afterwards deepened by dredging to seventeen or eighteen feet. The south pier at the mouth of the river was extended by the government across the old channel. (Rec., 729-30, 766, 789, 913.)

The depth of the water in the outer harbor varies from seven or eight feet, inside, to seventeen feet at the eastern entrance. The average depth is not over fourteen and one-half feet. The government had done no dredging there since 1888. Major Marshall states that vessels do not need it as a harbor of refuge; and it cannot be used for commercial purposes by any of the lake-going vessels, except by using the Illinois Central docks and wharves. No work had been done by the government in the outer harbor since Major Marshall had been in charge of the district. As no effort had been made by anybody except the Illinois Central Company to take advantage of the harbor, he had advised the Secretary of War to spend no money on it. If the harbor should ever be used for commercial purposes, as we are advised by Major Marshall, it would have to be dredged to the depth of twenty feet to accommodate the general commerce of the lake as the harbors and channels are now projected or completed. (Rec., 891.)

To the question, "Having reference to the manner in which commerce in vessels is now conducted on the lakes at the port of Chicago, what, in your opinion, is the reasonable and necessary depth of water in a slip or dock for the accommodation of that commerce?" Major Marshall makes this answer: "At present no vessel with a deeper draft

than about sixteen feet can carry on commerce in the Chicago river, so that I should think that a foot deeper than that, seventeen feet, would be a proper depth to accommodate the largest as well as the smallest vessels that come to Chicago now." (Rec., 891.)

This question was put to the same witness: "If you were to construct a pier or wharf in the said outer harbor for the accommodation of vessels engaged in lake commerce, or were to advise in relation thereto, what would be the depth of water you would consider it necessary to reach in order that such pier or dock should be available for the uses intended?" Major Marshall's answer is: "Seventeen feet at present, and ultimately they should construct their docks with twenty feet of water. Piling and bulkheads so as to stand dredging to twenty feet."

The witness was further asked to state what depth of water there should be between the bottom of vessels entering the harbor and the bed of the navigable water to guard against dangers to vessels by chance obstructions. His answer was, that it was his own opinion and that of other engineers, that larger vessels, similar to those that enter the Chicago river, should have at least two feet. For small vessels in still channels there should be at least one. To make eighteen feet available for the purpose of navigation, the water, he says, should be two feet deeper, or twenty feet, to guard against ordinary and temporary fluctuations and chance obstructions.

To the question put on cross-examination: "Supposing I should tell you that the average draft of the vessels coming into Chicago harbor in 1869 was about six feet, and the average draft of vessels coming into Chicago harbor in 1895 was about nine feet, what effect would that have upon your judgment as to how deep to make a harbor?" The answer was: "Wouldn't have any at all, because I would have to make any harbor—any channel—to accommodate the general commerce of the lakes, which would include the cats as well as the kittens." It would have to be made deep enough,

he repeats, to accommodate the biggest boats that trade at that port or would be likely to trade there.

Two of the witnesses—William L. Brown and W. I. Babcock—had been for five years connected with the Chicago Shipbuilding Company, one as president and the other as naval architect and general manager. The company had a large shipbuilding establishment at South Chicago, where it employed from 400 to 1,200 men.

The vessels constructed there had been so far entirely of steel, and all were steamers in use or intended for use in the commerce of the lakes.

The first two vessels were duplicates, 292 feet keel, 40 feet beam, $24\frac{1}{2}$ feet deep. Their tonnage is about 2,400, and they are capable of being loaded to 18 feet draft.

The next vessel was 330 feet keel, 45 feet beam, $24\frac{1}{2}$ feet deep, tonnage 2,957, and capable of being loaded to 18 feet draft.

The next was 230 feet keel, 37 feet beam, 19 feet deep, tonnage 1,264, and capable of being loaded to 15 feet draft.

The next two were duplicates, 287 feet keel, 41 feet beam, 24 feet $7\frac{1}{2}$ inches deep, tonnage 2,330, and capable of being loaded to 18 feet draft.

The next was 275 feet keel, 42 feet beam, $24\frac{1}{2}$ feet deep, tonnage 2,945, draft 15 feet.

The next was 328 feet keel, 44 feet beam, $27\frac{1}{2}$ feet deep, tonnage 3,093, and capable of loading to 20 feet.

There were in the yard unfinished:

Two vessels, 302 feet keel, 40 feet beam, 24 feet deep, tonnage 2,237, and capable of loading to 18 feet draft.

One vessel, 362 feet keel, 44 feet beam, 26 feet deep, tonnage 2,600, and capable of loading to 20 feet draft.

Two steamers then on the stocks, 380 feet keel, 48 feet beam, 28 feet deep, tonnage about 3,600, and 20 feet draft.

It is stated by these witnesses that there were eight metal-building ship yards on the lakes—one at West Superior, Wis-

consin; one at West Bay City, Michigan; one at Detroit, Michigan; one at Toledo, Ohio; two at Cleveland, Ohio; one at Buffalo, New York, and one at Chicago. Most of the vessels constructed in the other yards were of about the same size as those they were building at Chicago.

Mr. Babcock states that there were 165 metal (steel and iron) vessels on the lakes in 1894, with a draft varying from 10 to 18 feet. Some of the passenger boats, perhaps, draw less than 10 feet; but all the old boats of 2,500 tons and over that leave Chicago draw from 16 to 17 feet. The size of the boats has been increasing very rapidly and very constantly.

Both these witnesses testify that, in their opinion, having reference to the size and character of the vessels now in use on the lakes, the reasonable and necessary depth of water in a slip or dock for the accommodation of shipping is not less than twenty feet; and that, if they as riparian proprietors on Lake Michigan were to construct a pier or wharf for the accommodation of lake commerce, they would consider it necessary that it should reach water at least twenty feet deep.

The other expert witnesses—Captain John Prindiville, Captain Harmon, Captain Van Dolson and Mr. Redmond Prindiville—concur substantially in the opinion expressed by Major Marshall. The wharf should reach water not less than eighteen feet deep to make it available for the purposes intended.

The court will find on reading the testimony of those witnesses that these are the opinions of practical and experienced men, familiar with navigation and the details of lake commerce, and competent to speak instructively on that subject.

The question will naturally be asked, to what extent have these opinions been controverted? The answer is, that not the slightest attempt has been made to controvert them. *Not a single witness was called for the State to gainsay this testimony.*

III.

PIERS 1, 2 AND 3 NEAR CHICAGO RIVER.

One of the questions to be determined is, whether the piers 1, 2 and 3, between the north line of Randolph street extended and the river, "extend beyond the line of practical navigability, having reference to the manner in which commerce in vessels is conducted on the lake."

It appears from the evidence that work was commenced on pier 1 (next to the river) in 1871. The prosecution of the work was suspended in consequence of an injunction obtained by the United States in the Circuit Court, in a suit in which the substantial ground of complaint was that an appropriation had been made by Congress (in 1870) and plans had been prepared by the Engineer Bureau for the construction of an outer harbor, and that the works contemplated by the Railroad Company would interfere with those plans and obstruct navigation. The suit never came to a final hearing. On the 3d of August, 1871, a board of engineer officers was appointed by the Secretary of War "to take into consideration the plans for docks in the basin now (then) being formed (at Chicago) by the construction of the United States breakwater in that harbor; which docks are proposed to be built by the Illinois Central Railroad Company or others; to report their views thereon, and to establish the limiting harbor lines for such construction in that basin, reference being had to the interests of commerce and navigation therein." The board was advised that "the object sought to be attained by the construction of the breakwater and the legitimate use of the basin should be fully discussed by the board, and the grounds for its conclusions fully stated."

The report of the board was transmitted to the Secretary of War September 29, 1871, in which it was recommended that a line be established in the outer harbor "commencing at a point

on the south side of the United States south pier and 1,200 feet west of the west line of the breakwater, and running due south till it intersects the prolongation of the north line of Randolph street, thence due west 800 feet, thence due south till it intersects an east and west line through the south end of the breakwater as at present designed, as the harbor line, beyond which no wharves or other structures shall extend." The plan for wharves south of Randolph street, submitted by the Illinois Central Railroad Company, was disapproved; but north of Randolph street there was no dispute, it was said, as to the ownership of the Railroad Company, nor any opposition to building wharves.

An official letter from the Chief of Engineers, addressed to the Secretary of War, accompanies the report, from which the following extract is taken: "The report of the board is herewith transmitted, and the approval of the harbor line proposed by it is respectfully recommended, *together with so much of the plan submitted by the president of the Illinois Central Railroad Company as relates to wharves north of the north line of Randolph street prolonged.*" Indorsed upon this letter, under date of October 4, 1871, is the official approval of the Secretary of War.

Afterwards, on the 16th of January, 1872, the injunction before mentioned was dissolved and the suit dismissed, as per stipulation filed binding the Railroad Company to conform to and observe the limiting harbor line which had been established as above stated.

Evidence substantiating all the foregoing facts will be found on pages 462-472 of the printed record, and there is no dispute in regard to them.

The original plan for the three piers was approved in 1871. Pier 1 was constructed in conformity to that plan; but it appears that in 1880 the plan was modified in respect to piers 2 and 3, with the approval of the Secretary of War. The original lines, as well as those finally adopted, are shown on

the tracing accompanying the official communication from Major G. J. Lydecker of the Corps of Engineers to Mr. Jeffery, the general superintendent of the Railroad Company, of November 22, 1880, advising him of the action of the War Department. Those piers were built in accordance with the modified plan. (Rec., 333-335, 356-7, and map on page 5 in Book of Exhibits.) Neither of the three piers extends beyond the harbor line established in 1871.

As the War Department had assumed control of the outer harbor before either of the three piers was constructed, by virtue of the act of Congress of July 11, 1870, appropriating \$100,000 for "enlargement of harbor facilities at Chicago, Illinois, according to the plans of the Engineer Department," it was supposed that the action of the Secretary of War was to be accepted as conclusive evidence that the authorized works would not obstruct navigation, and was in itself sufficient to justify their erection. This was the view adopted by Mr. Justice Harlan and Judge Blodgett at the original hearing of the case in the Circuit Court; and the following authorities may be cited as seeming to furnish pretty strong support for the opinion: *South Carolina v. Georgia*, 93 U. S., 4; *Wisconsin v. Duluth*, 96 U. S., 379; *Boom Company v. Patterson*, 98 U. S., 403, 409; *The Clinton Bridge*, 10 Wall., 454; *Pennsylvania v. Wheeling Bridge Co.*, 18 How., 421; *Mississippi Bridge Co. v. Lonergan*, 91 Ill., 508.

It is true, however, that when the harbor line was established in 1871, and the plans for piers 1, 2 and 3 were approved, there was no statute in force expressly authorizing the Secretary of War to exercise such authority. But that power has been supplied in express terms by subsequent legislation. Section 12 of the River and Harbor Act of August 11, 1888, provides as follows: "Where it is made manifest to the Secretary of War that the establishment of harbor lines is essential to the preservation and protection of harbors, he may and is hereby authorized to cause such lines to be established beyond

which no wharves or piers shall be extended, or deposits made, except under such regulations as may be prescribed from time to time by him. (25 U. S. Stat., 425.)

After the passage of that act, on the 11th of September, 1890, another Board of Engineers was appointed by the Secretary of War to consider and report upon the subject of harbor lines at Chicago. It is stated in the report of the board that the maps and records of the harbor had been consulted, and the report of the Board of Engineers convened in 1871 upon the same subject examined; also that a public meeting had been held, which was previously advertised in the Chicago daily papers, at which all parties interested in the establishment of docks and harbor lines and in the use of the submerged lands within the harbor inclosure had been heard who wished to be heard.

The recommendations made by the board, so far as they are now material, are disclosed in the following extracts from their report:

"The construction of this harbor basin was commenced in 1871, and was practically completed, except dredging, by 1881. In 1871 a Board of Engineers, composed of Lieut. Col. I. C. Woodruff, Major G. K. Warren and Major D. C. Houston, Corps of Engineers, recommended the establishment of a dock line, which recommendation was approved by the Secretary of War, October 4, 1871, as follows:

"The board is of opinion that an open space of not less than 1,200 feet west of the breakwater, north of the north line of Randolph street, and 2,000 feet west of the breakwater south of that line, is sufficient for the purpose of a roadstead, and would recommend that a line commencing at a point on the south side of the United States south pier and 1,200 feet west of the west line of the breakwater, and running due south till it intersects the prolongation of the north line of Randolph street, thence due west 800 feet, thence due south till it intersects an east and west line through the south end of the breakwater as at present de-

signed, be established as the harbor line, beyond which no wharves or other structures shall extend.'

"This harbor line, as established in 1871 and adhered to since that date, terminated southward, opposite the present end of the easterly breakwater just north of the present east entrance to this outer harbor basin, at which point the harbor, as then designed, terminated. Since that date the easterly breakwater has been further extended and the harbor, instead of having its southerly limit between Van Buren and Congress streets, of the City of Chicago, extends as far south as to between Twelfth and Thirteenth streets of the city.

"There have been no reasons presented to the board for any change in the position of the harbor line, as far as it has been established, nor for a change of direction of this line southward from Van Buren street. The reasons given by the Board of Engineers of 1871 of (for) the location of the harbor line as far as Van Buren street still hold good, and are applicable to the extension of this line southward throughout the limits of the harbor."

"The board, therefore, recommend the following harbor line for adoption:

"Commencing at a point on the south side of the United States south pier of the entrance to Chicago river, and 1,200 feet west of the west line of the easterly breakwater, outer basin, and running due south till it intersects the prolongation of the north line of Randolph street, thence due west 800 feet, thence due south to the southern limit of the outer harbor.

"Prior to 1888 there was no general law relating to harbors under which the relative rights of the States and of corporations and individuals claiming under the States or General Government, to the use of submerged lands by filling them up, and to riparian rights of accretion, dockage and wharfage, and of the rights of the public generally, or the United States collectively, to the unobstructed and free navigation of the navigable waters of the United States, could be limited or defined, but in the River and Harbor act

of 1888 is contained the following provision, under which the Board of Engineers is assembled:

"'Sec. 12. Where it is made manifest to the Secretary of War that the establishment of harbor lines is essential to the preservation and protection of harbors, he may, and is hereby authorized, to cause such lines to be established, beyond which no piers and wharves shall be extended or deposits made, except under such regulations as may be prescribed from time to time by him.'

"Whatever opinions and consequent actions may have heretofore been had as to the authority of the General Government, through its executive departments, in limiting riparian rights, or in directing and conditioning the application of these rights, the board consider that by the establishment under the act of August 11, 1888, of a dock or harbor line, 'beyond which no piers or wharves shall be built or deposits made,' the Secretary of War limits not only the riparian rights of individuals to wharfage or dockage, and the rights of the State to fill in or authorize the filling in of submerged lands, but limits, also, the rights of the public generally, or of the General Government, to the unobstructed rights of navigation, the limit being at this harbor line."

The report of the board was transmitted, September 19, 1890, through the office of the Chief of Engineers, to the Secretary of War, with the following endorsement:

"It having been made manifest to the Secretary of War that the establishment of harbor lines is essential to the preservation and protection of the harbor at Chicago, Illinois, a Board of Engineers was constituted by special orders from headquarters, Corps of Engineers, to consider and report upon the subject, and the board recommends for approval of the Secretary of War the harbor and dock lines described in the within report and delineated upon the accompanying chart.

"It is recommended that the line selected be approved, and that the Secretary place his approval both upon the report and the drawing submitted."

September 22, 1890, the line recommended by the board was approved by the Secretary of War.

The official report from which the foregoing extracts have been taken, and the action referred to consequent thereon, have been put in evidence (Rec., 890) and will be found on pages 942-950 of the printed record.

It is thus shown that since the original hearing in this case a harbor line has been established in the outer harbor by the government of the United States, pursuant to authority conferred by an act of Congress; and that this action was taken for the purpose of establishing a line to which wharves and docks might be extended by parties entitled to construct them.

By virtue of the power to "regulate commerce with foreign nations, and among the several States," the government of the United States possesses supreme authority in matters of this nature. As was said by the Supreme Court in *Pennsylvania v. Wheeling Bridge Company*, above cited, "that authority combines the concurrent powers of both governments, State and Federal," and when exercised is necessarily conclusive. The harbor line has, therefore, been established not only by competent public authority, but by the only sufficient and complete authority vested anywhere in our system of government.

The action of the War Department was final, and no appeal lies from it. It was the exercise of a quasi-judicial function; and the doctrine is general, that when the law has confided to a public officer the performance of a particular duty involving the exercise of judgment and discretion, and no provision has been made for the review of his proceedings by an appellate or supervisory tribunal, the act done within the scope of the authority conferred is binding and conclusive upon every one. The court has said on this subject:

"It is a universal principle, that when power or jurisdiction is delegated to any public officer or tribunal over a subject-matter, and its exercise confided to his or their discretion, the acts so done are valid and binding as to the subject-

matter; and individual rights will not be disturbed collaterally for anything done in the exercise of that discretion within the authority and power confided. The only question which can arise between an individual claiming a right under the act done and the public, or any person denying its validity, are power in the officer and fraud in the party. All other questions are settled by the decision made or act done by the tribunal or officer, whether executive, legislative, judicial or special, unless an appeal is provided, or other revision by some appellate or supervisory tribunal is prescribed by law." (*United States v. Arrondo*, 6 Pet., 729.)

Further judicial utterances to the same or similar effect will be found in the following cases: *Decatur v. Paulding*, 14 Pet., 497; *Ballance v. Forsyth*, 24 How., 183; *Belcher v. Linn*, 24 How., 508; *Gaines v. Thompson*, 7 Wall., 347; *Quinby v. Conlan*, 104 U. S., 420; *Smelting Co. v. Kent*, 104 U. S., 637; *Steel v. Smelting Company*, 106 U. S., 447; *Miller v. Mayor of New York*, 109 U. S., 385; *Lee v. Johnson*, 116 U. S., 48.

In line with those decisions are the two following from the Supreme Court of Illinois: *Robbins v. Bunn*, 54 Ill., 48; *Danforth v. Morrical*, 84 Ill., 456.

It appears, moreover, that the harbor line was established with especial reference to the necessities of lake commerce, after deliberate consideration and with full knowledge respecting the depth of water inside that line as well as the size and capacity of vessels then employed in navigation.

A map known as the "Houston Map" was put in evidence by counsel for the State (Map on page 10 in Book of Exhibits), which was made by Mr. Casgrain, an assistant engineer employed under Col. Houston in the Government surveys of harbors on Lake Michigan. Mr. Casgrain made a survey of the harbor of Chicago in 1869, for the purpose of locating the outside breakwater; and in 1871 he made another survey, under the direction of Col. Houston, *with soundings*, with a view to

the establishment of dock lines in the outer harbor. This map was prepared from these surveys, to be submitted to the Board of Engineers appointed by the Secretary of War for the purpose last mentioned, and bears upon its face an endorsement signed by the engineer officers composing the board of 1871, whose report is referred to above. Mr. Casgrain, a witness for the State, testifies *that the map was made for the information of that board.* (Rec., 671-2, 682-3.)

The soundings were made by Mr. Casgrain April 12, 1871, and he testifies that the figures on the map denote the actual depth of the water at the time the soundings were taken; but that the mean surface level of the lake was then two and one-tenth feet above *Chicago datum.* (Rec., 672.)

Chicago datum is the plane of low water in 1847, as established by the trustees of the Illinois and Michigan Canal, and afterwards adopted by the City as the base or *datum* for city levels. (Rec., 608, 655-6.)

The surface level in the river and lake is subject to constant fluctuations. Major Marshall testifies (Rec., 553-4) that there are annual fluctuations, which are extremely regular, amounting to a foot and one-tenth, and from that up to a foot and a half. These depend upon the seasons and the rain-fall. Then there are temporary or diurnal fluctuations, caused by the wind, evaporation, barometric pressure and other causes, which are sometimes as great as four or even five feet in twenty-four hours. Mr. Liljencrantz states that the annual fluctuations amount ordinarily to about two feet (Rec., 607, 609), and Mr. Casgrain, speaking of temporary changes in the surface level, says he has noticed a fluctuation of two and a half feet in half an hour. (Rec., 681-2.) Occasionally, as shown by the testimony of Mr. Greeley—a witness for the State—the surface level falls six inches or more below *Chicago datum* (Rec., 656); and in 1893, according to Capt. Harmon, it was below that stage, on the average, throughout the season. (Rec., 759.) But the ordinary height of water in the harbor

is said by this witness to be about one foot above Chicago datum.

Attention will now be directed to the "Houston Map." The court will observe a rectangular space marked out on the map adjacent to the south pier at the mouth of the river, on which are inscribed the words: "Proposed Docks of Illinois Central Railroad Company." This is the area occupied by the Illinois Central Piers 1, 2 and 3, and two intervening slips. When the map was made the site was covered with water, and soundings appear to have been taken there at intervals of about 100 feet, which are expressed in feet and tenths of a foot. Ten lines of soundings are shown, which are here reproduced, *beginning with the west line, next to the shore:*

												AVERAGE
9.3	9.7	9.4	9.7	9.7	12.7	8.7	10.3	10.7	11.7	12.7		10.4
9.7	9.7	9.7	10.2	10.1	10.1	10.2	11.1	11.4	12.2	12.6		10.6
10.1	9.7	10.0	10.3	10.4	10.4	10.9	11.6	11.7	12.5	12.7		10.9
10.3	9.7	10.2	10.9	10.8	10.9	11.5	11.7	11.9	12.1	12.2		11.1
10.4	10.7	11.0	11.3	11.1	11.5	11.5	11.2	10.4	9.5	6.7		10.4
10.2	12.5	11.7	11.5	11.2	11.0	10.5	11.1	11.1	10.9	9.7		11.0
10.4	12.2	11.6	11.7	9.7	8.5	8.5	9.1	8.5	8.5	8.5		9.7
10.8	10.7	9.2	10.7	10.3	10.0	10.3	9.3	9.5	8.4	8.4		9.8
10.9	9.7	9.7	12.0	12.3	12.1	11.7	10.7	8.7	8.7	8.7		10.4
10.5	9.7	14.3	15.2	12.5	14.0	13.2	12.1	9.5	9.3	9.1		11.8

The whole number of soundings within the entire area is 110, and the average depth of water indicated is 10.6 feet. The average depth on the outer line, shown by the soundings, is 11.8 feet.

To ascertain the depth *below Chicago datum*, two and one-tenth feet should be deducted from the figures placed on the map. Thus the depths indicated by the soundings along the exterior line spoken of above, when referred to the plane of reference known as *Chicago datum*, range from 7 to 13.1 feet, the average depth being 9.22 feet; and the average depth of water over the entire area is reduced to 8.54 feet.

Another map, known as the Wheeler map, made in 1869, under the direction of Col. Wheeler of the U. S. Corps of Engineers, was also put in evidence by counsel for the State.

(Map on page 7, Book of Exhibits.) Soundings are also noted on this map within the area now occupied by Piers 1, 2 and 3, and the two intervening slips. The figures are given in parallel lines *running out easterly from the shore*. The soundings noted, expressed in feet and tenths of a foot, are as follows:

AVERAGE														
9.0		9.6	9.7	9.8	10.2	11.0	11.6	12.2	12.2	11.5	11.4	16.0	12.2	11.2
9.2	9.4	9.5	9.6	9.6	10.0	10.6	11.0	12.0	12.0	12.0	11.0	10.0	9.0	10.3
9.3	9.5	9.0	10.0	9.0	10.3	10.8	11.0	11.5	12.0	11.5	8.9	8.0	8.3	9.9
9.6	9.5	10.0	10.2		10.5	10.7	11.4	11.6	14.6		8.5	8.0	8.2	10.2
9.0		10.0	9.0	10.0	10.5	11.0	11.2	11.4	10.5	8.6	8.0	7.3	8.0	9.5
10.5	9.3	10.5	9.9		10.8	11.4	11.6	11.0	8.4	7.8	12.0	7.8	8.2	9.9
8.6	8.0	8.6	11.0	11.2	11.0	11.5	11.8	9.4	7.6	7.0	11.1	7.6	8.0	9.4
9.0		8.6		11.5	11.5	11.4	12.0	9.3	6.9	8.5	7.7	8.2	8.4	9.4
10.7	10.7		11.0	12.0	12.2	12.3	11.5	7.4	7.8	8.0	9.3	9.0	8.7	10.0
10.0	11.7	12.0	12.4		12.6	12.0	8.2	7.0	7.3	8.0	8.0	8.2	8.7	9.7
10.0	7.7	12.2	12.6		12.8	12.6	10.3	7.0	7.6	7.7	8.2	8.4	8.7	9.6
14.3		12.1		12.8	12.8	12.2	7.5	7.0	9.7	8.0	8.0	8.0	8.2	10.0

The average depth on each line is noted in the column at the right. The average depth over the entire area was not quite ten feet. Mr. Casgrain, who made the soundings between July 20th and August 20, 1869, testifies that the figures on the map denote the actual depth of water at that time, but that the mean surface level of the lake was then one foot and fifty-five hundredths above Chicago datum. (Rec., 670.) To ascertain the depth below that plane, 1.55 must therefore be deducted from the measurements given above. This reduces the average depth over the whole area to something less than 8.45 feet below Chicago city datum.

There is substantial agreement between the results shown on these maps and those obtained by Mr. Kennedy and others, who made soundings in the same place in February, 1872, for the Illinois Central Railroad Company,—proper allowance being made for the different planes of reference adopted by the parties.

It is thus proved conclusively that the Board of Engineers appointed in 1871 to consider and report upon the plans for docks proposed to be built by the Illinois Central Railroad Company in the outer-harbor, and to establish limiting lines for

such constructions in that basin, acted upon full information, furnished them officially by Col. Houston (one of their own number and the Engineer Officer then in charge of the harbor improvements at Chicago), as to the depth of the water then overlying the site of the projected improvements. The board was composed of three officers of the U. S. army in the engineer service;—one of them, as before stated, the resident engineer on duty at Chicago, and all of them, presumably, exceptionally well qualified by their training and experience for the service required of them. They had the Houston Map before them, and placed upon it a note over their own signatures describing the harbor lines which they recommended. It appears furthermore from their report, which has been put in evidence, that this map was submitted, with their report, to the Chief of Engineers. It also appears that the Chief of Engineers endorsed their recommendation in respect to the harbor line, and also in regard to the plan of wharves (north of Randolph street) which had been submitted by the Railroad Company; and the whole was approved by the Secretary of War.

The Board of Engineers appointed in 1890, to consider and report upon the subject of harbor lines at Chicago, was likewise composed of three officers of the U. S. Engineer corps—one of them (Major Marshall) the officer in charge of the river and harbor improvements at Chicago. It appears from their report, that the maps and records of the harbor were consulted, and that the report of the Board of Engineers convened in 1871 was examined. Thus it is clear that their information in respect to the depth of water inside the proposed harbor line was as full and complete as that possessed by the board of 1871. The line proposed by that board was approved, with the further recommendation that it be extended from the line of Van Buren street south to the southern limit of the harbor. This recommendation was endorsed by the Chief of Engineers, and received the approval of the Acting Secretary of War.

We submit that this action of the War Department, on a subject clearly within its special jurisdiction, should be accepted as conclusive. But if the matter were open to re-examination and review in the courts, it is not to be disputed that the deliberate judgment of two boards of engineers, composed of six different officers—two of them for several years in charge of the harbor improvements at Chicago,—re-enforced by the concurring opinions of two different Chiefs of the Corps of Engineers, all acting officially on a subject within the scope of their duties, ought to be accepted as decisive, unless there is conclusive evidence before the court to discredit that judgment.

There is no such evidence. It is proved that none of the piers or other works constructed by the Railroad Company in the outer harbor extend beyond the harbor or dock line; and there is no evidence in the case even *tending* to show that the dock line is fixed at a greater distance from the shore than is reasonably necessary to accomplish the purposes for which the harbor was designed.

To make the harbor useful for commercial purposes, docks must be provided that can be reached by vessels of all sizes employed in lake navigation. The only constructions in the outer harbor adapted to these purposes are those which have been provided by the Illinois Central Railroad Company. No vessel drawing over 16½ feet can go up the Chicago river above the La Salle street tunnel except in a very high stage of water; and the bends in the river and the bridges are serious obstructions to the passage of large-sized vessels that can be taken over the tunnels. Major Marshall testifies that from one to three tugs are required in the movement of each boat, that it takes usually fully a day for it to get to the elevators above Twenty-second street, and as long to get back, and that the cost of loading and getting in and out of the river is about one-half the cost of the trip to Buffalo. (Rec., 894.)

The three piers built by the Illinois Central Railroad Com-

pany between Randolph street and the river have slips between them, which were dredged to the depth of 18 feet in order to accommodate vessels coming to the piers. This is proved by the testimony of Mr. Moore (Rec., 926), who also testifies that the slip known as slip C (lying east of Elevator B) has been dredged to the same depth to enable large boats to get into it. Captain Harmon states that the large grain vessels frequently complete their lading at the Illinois Central elevators, because they cannot get over the tunnels in the river when loaded to their full capacity. (Rec., 760.) It has also been shown that Piers 1, 2 and 3 did not extend into water more than 10 or 11 feet deep below Chicago *datum* at the time they were constructed; and it appears from soundings made by Mr. Greeley in 1894 (Rec., 654, and Map on page 20, Book of Exhibits), and by Messrs. Tarbet and Grafton in 1895 (Rec., 883, and Map on page 26, Book of Exhibits), that the water at the end of the piers was not deeper then, notwithstanding the dredging which had been done in and about the slips, than it was in 1872.

The testimony of the expert witnesses as to the reasonable and necessary depth of water at a dock to accommodate vessels now in constant use in the commerce of the lakes has been already referred to. Not one of these witnesses is of opinion that less than 17 feet is sufficient; almost all of them say 18 to 20 feet. To four of them—Captain Prindiville, Captain Harmon, Captain Van Dolson and Redmond Prindiville—all practical men who have had many years' experience in lake navigation, the question was put: "Assuming that the depth of water at the outer ends and sides of these structures (Piers 1, 2 and 3, and the pier and dock between Twelfth and Thirteenth streets) does not in any case exceed 14 or 15 feet, in the ordinary stage of water, do they, in your opinion, extend beyond the point of practical navigability, keeping in mind the manner in which the commerce of the lakes is now transacted in vessels?" The answer of each witness was in the neg-

ative; and no one was called to impugn their testimony. The necessary inference is that no competent witness could be found to express a contrary opinion.

It appears that the piers are 1,000 feet long. But the south pier, which was built by the United States Government before the Illinois Central piers were constructed, lying immediately adjacent to Pier 1, is 225 feet longer. The docks on the opposite side of the river occupied by the Peshtigo Company, extend at least 500 feet farther into the lake, and probably, although the evidence on this point is not so exact as it might be, not much, if at all, less than 1,000 feet. The pier built in 1893 by the Columbian Exposition Company opposite the fair grounds at Jackson Park, to furnish a suitable landing place for passenger steamers, extends into the lake, as stated by Major Marshall, about 2,400 feet; and the Illinois Steel Company's pier in front of their works at South Chicago, according to the testimony of the same witness, is 2,100 feet in length. Neither of these structures is considered an obstruction to navigation, for the very plain reason that a shorter pier would not answer the purpose for which a pier was needed. The length must obviously depend upon the distance necessary to be crossed to reach navigable water;—and by navigable water is meant, not water of sufficient depth to float an ordinary fishing boat, but water that can be navigated by vessels of all sizes that are regularly and constantly engaged in carrying on useful commerce between different ports on the great lakes. So, the inquiry to which we are confined by the mandate of the court in the present case, is in no way dependent upon the lineal dimensions of the piers in question; it is simply, whether they "extend into the lake beyond the line of practical navigability, having reference to the manner in which commerce in vessels is conducted on the lakes."

It appears that counsel for the State are not satisfied with the issue thus clearly defined in the directions given by this court. It is strenuously contended that the line of prac-

tical navigability referred to in the mandate is to be determined, not with reference to the manner in which commerce in vessels *is* conducted on the lake, but with reference to the size and draft of vessels in use at the time the structures in question were erected by the Railroad Company. In other words, the contention is, in effect, that although these structures extend no farther into the lake than is reasonably necessary to afford suitable commercial facilities for vessels now employed in lake navigation, yet, if it can be gathered from the evidence that they extend farther than was absolutely requisite thirty years ago to accommodate the comparatively diminutive vessels of that early period, the court should order the excess to be demolished and removed. It would be equally sensible to fill up the channels which have been deepened during the last twenty-five years and destroy the works erected by the Government to open a passage for vessels of twenty feet draft between Chicago and Buffalo.

If the respondent's piers do not extend into the lake beyond the harbor line established by competent public authority at any time before final judgment, or, if no harbor line had been lawfully established, beyond the line to which, in the condition of things now existing, such structures may be lawfully extended, *they cannot be said to interfere with the enjoyment of any public right*, and it would be a most anomalous proceeding to require them to be abated. The rule in such cases is definitely settled in the *Wheeling Bridge* case, before referred to, and was again applied in the case of the *Clinton Bridge*, which also has been previously cited. The directions of this court in the present case conform to those rulings; and it is not believed that the court will depart from those instructions.

But if the words of the mandate were changed and the test applied, which is contended for by counsel for the State, it would not affect the result of the present controversy. It appears from the testimony of Captain Harmon—which stands uncontradicted—that as early as 1869 grain vessels were loaded

at Chicago to a draft of 14 feet. Those drawing 13 feet appear to have been in common use. Loaded vessels of that class could not have been laid alongside the Illinois Central piers, at the time the piers were built, without dredging the slips. It is also to be borne in mind that the tendency then, as before and ever since, was to bring into use vessels of larger size and deeper draft. This fact is noticed in the report made by the Board of Engineers in 1871, to which we have before called the attention of the court, where it is said, that "in the future it is probable that vessels will seek Chicago harbor of much greater draft than can now enter the Chicago river, and these will necessarily seek the outer harbor." A good practical illustration of this tendency, and of the actual necessities felt at the time, is furnished by the facts shown in relation to the Washington street and La Salle street tunnels under the river. The Washington street tunnel was built in 1866 or 1867, and the channel above it was 15 or 15½ feet deep at a full stage of water. In 1869, when work on the La Salle street tunnel was commenced, that depth had been found insufficient. The public authorities deemed it necessary to sink the new structure low enough below the river to admit of a practicable channel over it of 16.8 feet, at the same stage of water, and that has since been found to be very inadequate. Illinois Central Pier No. 1 was erected in 1872 and 1873—Piers Nos. 2 and 3 in 1880 and 1881; and it is a significant fact that neither of those structures extended into water of anything like the depth of the channel over the Washington street tunnel. The difference was certainly not less than two or three feet. When these facts are considered, and the frequent fluctuations in the lake level, which must be provided against, are taken into account, it seems impossible to say that the harbor line fixed upon by the Board of Engineers in 1871 was improvidently established.

IV.

THE PIER AND DOCKS BETWEEN TWELFTH AND SIXTEENTH
STREETS.

One further question is included in the investigation directed by the mandate: Do the pier and docks constructed by the railroad company in front of the shore between Twelfth and Sixteenth streets extend into the lake beyond the line of practical navigability, having reference to the manner in which commerce in vessels is conducted on the lake?

By the pier is meant the structure known as the Thirteenth street pier, which was built in 1885; and by the docks, as we suppose, the structures south of that pier built in 1870, and the Weldon slip completed since the original decree in the Circuit Court, and pursuant to the permission there given. (Rec., 237.) These works are outlined in the tracing referred to by Mr. Tarbet in his testimony before the master,—a copy of which will be found on page 27 of the Book of Exhibits. The Thirteenth street pier and the works south of the pier (except the slip) are also delineated on the Morehouse Map (Map on page 3, Book of Exhibits).

It appears from the evidence taken in this case for the original hearing, that the railroad was located and built within the City of Chicago (which then extended south only to Twenty-second street), along the margin of the lake, pursuant to the provisions of an ordinance of the common council adopted June 14, 1852. The ordinance required the company to erect and maintain a continuous wall or structure of stone masonry or pier work, of regular and sightly appearance, in the lake, from the north side of Randolph street to the southern boundary of Lake Park, at a distance of not more than 300 feet from the western or inner line pointed out for its right of way, and to "continue said works to the southern boundary of the city, at such distance outside of the track of said road as

may be expedient, which structure and works shall be of sufficient strength and magntiude to protect the entire front of said city between the north line of Randolph street and its southern boundary from further damage or injury from the action of the waters of Lake Michigan". Reference is made to this ordinance in the former opinion of the court in the present case (146 U. S., 442); and the ordinance is set forth at length on pages 449-454 of the printed record.

The evidence further shows that for several years preceding the passage of the ordinance, the waters of the lake had been constantly encroaching upon the shore between Randolph street and Sixteenth street. This process of erosion was caused apparently by the construction of the piers by the Government at the mouth of the river in 1834 or 1835, and it appears to have been greatly accelerated by the extension of the piers farther into the lake a few years later. Attempts were made from time to time by the property owners on Michigan avenue and by the city to protect the shore, but their efforts proved ineffectual. When the railroad was located in 1852, more than half the dry land which in 1836 was included within the limits of Michigan avenue and Lake Park had been worn away. At that time the lake had advanced so far upon the shore, that from Randolph street to Jackson street only a narrow margin of land from 90 to 112 feet wide was left between the west line of the avenue and the lake, and frequent alarms disturbed the mayor of the City and other residents on Michigan avenue for the safety of their property. At the south end, the width of the park had been reduced since 1836 from 600 or 700 feet to 400. (Rec., Testimony of J. Y. Scammon, 268, 277-8, 297, 396-399; R. B. Mason, 286-8.)

Similar effects had been wrought during the same period upon the shore between Twelfth street and Sixteenth street. In 1840 the dry land along this part of the shore extended into the lake beyond the present works of the railroad company. Many acres were worn away by abrasion between 1835 and

1852. (Rec., Testimony of J. Y. Scammon, 296-8; C. C. P. Holden, 407-411.)

In 1870, the old breakwater from Twelfth street south, which had been built in 1852, had fallen into decay, and experience had shown the necessity of having this protection placed at a greater distance from the railroad tracks. By the ordinance of 1852 the railroad company was required to maintain this protection at such distance outside of the tracks "as may be expedient"; and when it became necessary to replace the old structure in 1870 the new work was made more durable and placed a little farther from the shore, on the line shown on the Morehouse Map (near the south end of the map), marked "Built 1870". It consisted of cribs made of timber, sunk in the water and loaded with stone, and it appears to have been completed, or nearly completed, in 1870, as far south as the prolongation easterly of the north line of Lot 21. (Rec., 330.) Mr. Jeffery testifies that the structure was needed to protect the works of the company at Weldon station (at the foot of Fourteenth street), where it had a machine shop, engine house, and other buildings. The lake, he says, made inroads on this property at times during heavy storms, and sometimes even washed away the railroad tracks. (Rec., 363.)

Afterwards this breakwater was extended farther south to the prolongation easterly of the center line of Sixteenth street. The same witness explains the necessity of the new breakwater, and we give the explanation in his own words:

"There were several objects; first was the fact, that, as the most violent storms come from the north-east, the waves run along the diagonal part of the breakwater of the outer harbor, and, following the line of that breakwater, strike into the company's premises at or near lot 21. The force of the waves and storm was felt more between the north line of lot 21 and Sixteenth street than at any other point along the lake shore, except around the curve near the Douglas monument. Experience showed that it was necessary to have the protection or breakwater removed some distance at

the point under consideration from the company's right of way and from its main tracks; and with that end in view this work was extended south to about the center of Sixteenth street. Another object was, that it was thought desirable to construct a slip or basin between the Company's shops, near lot 21, and Sixteenth street, the slip to be substantially north and south, so that vessels having Company's materials or having freight to handle could go down to the south end of the slip and pass into that slip and lie there safe from storms. The plan has not been carried out, but is still contemplated, and the subject is under consideration." (Rec., 364.)

Mr. Jeffery states in that connection, that a space 100 feet wide had been left at the south end of the proposed slip for the entrance of vessels.

It appears from the testimony of this witness that the breakwater was constructed of wooden crib-work, made of timbers securely bolted and riveted together. The cribs, when constructed, were floated to the desired location and filled with stone and sunk to the bottom of the lake. Then a superstructure of timber was erected upon the sunken part of the crib, and that also was filled with stone to a height of four or five feet above the ordinary level of the lake. After being filled with stone, the crib work was covered over with heavy planking, to prevent the stone from being washed out by the action of the waves.

After the structure was completed, in two violent storms that occurred, timbers were torn out of the Government breakwater in the outer harbor, and the one north of the mouth of the Chicago river, and these, together with other timbers piled on one of the breakwaters, were driven down by the storm in large quantities against the Company's work, and with such force as to tear the structure apart and demolish it so far as it was above the level of the lake. At the time Mr. Jeffery's evidence was taken (May 6, 1887) work was in progress to repair the damages caused by these storms. (Rec., 365.)

The large pier or wharf shown on the Morehouse map at the foot of Thirteenth street was built in 1885 and 1886. The circumstances leading to its construction are related in the testimony of Mr. Jeffery. (Rec., 350-362.) At a meeting of the Board of Engineers convened by the Secretary of War in 1882, which Mr. Jeffery attended, the fact was brought out that the outer harbor was not protected by a breakwater at the south end from southerly and south-easterly storms. It occurred to Mr. Jeffery, while listening to what was said on that subject, that a pier projecting into the lake from near the foot of Thirteenth street would serve the double purpose of intercepting the seas that might come from a southerly direction, and thus afford protection to shipping in the harbor, and of furnishing at the same time a convenient wharf for the use of the railroad company. He made a rough pencil sketch, in the presence of the Board, of the pier afterwards built, and, after consultation with Major Lydecker, the resident engineer, prepared a plan for the pier which met his approval. The plan was forwarded by Major Lydecker to the Chief of Engineers at Washington, and on the 12th of June, 1882, Mr. Jeffery was officially advised by that officer that the War Department had no objection to the construction of the proposed dock, provided that no change be made in its location and length, as shown on the plan presented. The pier was subsequently built by the Railroad Company, at a cost of about \$130,000. No change was made in the location or length of the pier, but it was built fifty feet wider than was at first intended. It is shown by the testimony of Major Marshall that it does not extend quite out to the harbor line established by the War Department. (Rec., 891-2.)

The slip at the foot of Sixteenth street is wholly inside the line of breakwater built in 1882. No change has been made in the position of that structure since it was first erected.

It has never been charged or pretended that these works, or any of them, have caused any obstruction to navigation.

No complaint of that kind has ever come from persons interested in shipping. Nor do they, or any of them, extend into the lake beyond the line of practical navigability designated in the mandate.

It appears from the testimony of Wm. L. Tarbet and Charles E. Grafton, both civil engineers, that soundings were carefully taken by them, between March 12 and April 30, 1895, around the Thirteenth street pier and the Weldon, or Sixteenth street, slip, and the intervening dock line; and that the results obtained, showing the depth of the water below city *datum*, were accurately noted on the map made by Mr. Tarbet, which has been put in evidence, marked "Defendant's Exhibit No. 7." The soundings, made at intervals of 100 feet, were taken at the edge of the dock, and at distances from the edge of 10, 25, 50 and 75 feet. (Rec., 884, 904, and Map on page 27, Book of Exhibits.)

Along the line of the outer piling, extending from near the south line of Twelfth street produced to the prolongation of the center line of Sixteenth street (excluding the Thirteenth street pier), the depths noted in feet and tenths of a foot are as follows:

AT THE EDGE.	10 FEET DISTANCE.	25 FEET.	50 FEET.	75 FEET.
6.1	8.2	8.6	9.7	11.0
0.0	1.2	8.7	8.7	9.4
6.9	8.5	9.4	9.8	10.5
10.4	11.2	11.5	11.7	11.9
10.6	12.5	12.5	10.9	11.7
9.8	11.7	11.8	12.0	12.2
10.0	12.3	12.2	12.4	12.6
8.3	12.2	12.8	12.8	13.0
10.2	13.1	13.0	13.1	13.2
9.7	12.8	13.6	13.2	13.5
8.9	12.1	13.3	13.0	13.2
6.8	11.1	13.0	12.4	13.2
9.9	11.5	13.0	13.0	13.0
8.2	12.1	13.1	13.2	13.2
8.9	10.8	13.3	13.2	13.1
5.7	7.5	11.7	12.2	12.5
10.5	9.8	11.8	12.2	12.8
10.0	11.3	11.6	12.2	12.6
9.7	11.5	11.4	12.1	12.9
10.4	11.3	11.2	11.9	12.6
9.7	11.0	11.2	11.9	12.6
9.5	11.5	11.6	12.1	12.9
8.1	8.8	10.9	12.5	12.7
12.3	13.3	13.4	14.0	13.4
<i>Average.</i> 8.3	10.7	11.8	12.1	12.5

It will be observed that the depths indicated along the edge of the piling range from zero to 12.3 feet. Only in one spot, at the extreme southerly end of the piling, is a depth shown of more than 10.6 feet. All but eight of the soundings are less than 10 feet—the general average being 8.3 feet.

At the distance of 25 feet from the edge, the soundings range from 8.6 feet to 13.6 feet. In five spots on this line a depth is shown of a little more than 13 feet. All but eleven soundings are less than 12 feet—the general average being 11.8 feet.

At the distance of 50 feet from the edge, the soundings range from 8.7 feet to 14 feet. In one spot only, at the south end of the piling, is the latter depth shown. Six soundings indicate a depth of from 13 to 13.2 feet; ten, a depth of from 12 to 12.8 feet; the general average being 12.1 feet.

The soundings in front of that part of the outer piling which was constructed in 1882, as indicated on the Morehouse Map, are shown in the last eight lines of the foregoing tabular statement. They indicate a depth of water at the edge of the piling of from 8.1 to 12.3 feet. Only three soundings show a depth of more than 10 feet, the general average being 10 feet and an infinitesimal fraction.

At the distance of 25 feet from the edge, those soundings range from 10.9 to 13.4 feet, the general average being 11.6 feet.

At the distance of 50 feet from the edge, the soundings range from 11.9 to 14 feet, the general average being 12.3 feet.

The depths of water about the *Thirteenth street pier*, as shown by these soundings, are as follows:

NORTH SIDE OF THE PIER, BEGINNING AT THE SHORE.				
AT THE EDGE.	10 FEET DISTANCE.	25 FEET.	50 FEET.	75 FEET.
3.0	3.7	7.1	9.2	9.2
9.0	9.6	9.8	9.9	10.0
9.5	9.3	10.0	10.0	9.6
7.8	8.5	8.8	9.2	9.7
8.2	9.0	9.4	9.4	9.5
9.4	9.6	10.1	10.2	10.2
9.5	9.9	10.1	10.2	10.1
9.8	9.8	10.2	10.2	10.6
10.2	11.1	11.1	10.3	10.6
12.3	12.4	12.7	12.9	12.4
12.1	13.5	14.0	13.9	14.3
<i>Average..</i> 9.16	9.67	10.3	10.5	10.56

EAST END OF THE PIER.				
AT THE EDGE.	10 FEET DISTANCE.	25 FEET.	50 FEET.	75 FEET.
12.1	13.2	14.1	14.2	14.6
5.3	6.4	13.4	14.2	15.0
12.2	12.4	12.0	13.4	14.5
12.2	13.3	14.4	14.2	14.2
<i>Average..</i> 10.45	11.32	13.47	14.	14.57

SOUTH SIDE OF THE PIER, BEGINNING AT THE SHORE.

AT THE EDGE.	10 FEET DISTANCE.	25 FEET.	50 FEET.	75 FEET.
6.9	8.5	9.4	9.8	10.5
8.7	9.6	9.8	10.8	11.1
9.8	9.7	10.5	11.2	11.4
9.9	9.9	10.8	11.6	11.7
10.2	10.3	10.8	11.6	12.1
9.1	9.5	10.7	11.4	12.1
9.8	10.1	10.9	11.6	11.9
10.5	10.5	11.2	11.9	12.2
10.6	10.7	11.6	12.0	12.6
12.2	13.1	13.3	13.8	14.0
<i>Average.</i> 9.77	10.19	10.9	11.57	11.96

These results are not essentially different from those obtained by the complainant's witness, Mr. Greeley, and noted on his map, marked "Complainant's Exhibit O". (Map on page 21, Book of Exhibits.) Mr. Greeley testifies that his soundings were taken August 1, 1894. (Rec., 656.) They purport to have been made at intervals of 100 feet, and to show the depth of the water in feet and tenths of a foot below city *datum*, at the edge of the dock, and at distances of 25, 50 and 100 feet therefrom.

The soundings along the line of *outer piling* between Twelfth and Sixteenth streets extended (excluding the Thirteenth street pier) are noted on the map as follows:

AT THE EDGE.	25 FEET DISTANCE.	50 FEET.	100 FEET.
6.8	10.3	10.3	12.3
7.8	9.4	9.3	11.3
9.8	10.8	11.8	12.3
10.8	13.8	12.3	12.8
11.3	13.3	12.8	13.3
10.8	13.2	13.5	14.3
11.8	14.3	13.8	14.3
12.8	13.8	13.8	14.8
11.3	13.3	14.3	14.8
10.3	14.8	14.8	14.8
10.3	14.8	13.8	14.8
10.3	14.8	14.8	15.3
9.8	14.8	14.8	15.3
11.8	14.8	14.8	15.3
11.3	14.3	14.8	14.8
12.3	13.3	13.8	14.8
11.8	12.8	13.3	14.3
8.3	12.8	13.3	14.3
11.8	12.3	12.8	14.8
9.3	12.8	13.3	14.8
12.3	12.3	13.3	14.8
9.8	12.3	13.8	14.8
11.3	13.8	14.8	15.3
13.8	14.3	14.8	14.8
<i>Average..</i> 10.7	13.2	13.45	14.3

The depths noted along the edge of the piling range from 6.8 to 13.8 feet. Only in four spots are they more than 11.8 feet. One-half of the soundings are less than 11 feet, and the general average is 10.7 feet.

At the distance of 25 feet from the edge, the soundings range from 9.4 to 14.8 feet, the general average being 13.2 feet.

At the distance of 50 feet from the edge, the soundings range from 9.3 to 14.8 feet, the general average being 13.45.

The soundings in front of that part of the outer piling which was constructed in 1882, as indicated on the Morehouse Map, are shown in the last nine lines of the foregoing tabular statement. They indicate a depth of water at the edge of the piling of from 8.3 to 13.8 feet. Only three soundings show

a depth of more than 12 feet, the general average being a little less than 11.2 feet.

At the distance of 25 feet from the edge, the soundings range from 12.3 to 14.3 feet, the general average being 12.9 feet.

At the distance of 50 feet from the edge the soundings range from 12.8 to 14.8 feet, the general average being a trifle less than 13.7 feet.

The soundings noted on the *Greeley Map* about the *Thirteenth street pier* are as follows:

NORTH SIDE OF THE PIER, BEGINNING AT THE SHORE.			
AT THE EDGE.	25 FEET DISTANCE.	50 FEET.	100 FEET.
6.8	8.8	8.6	10.3
8.8	10.8	10.6	10.8
10.3	10.8	10.8	10.8
7.8	9.3	9.8	11.3
9.4	9.8	9.8	11.3
8.5	10.2	10.8	11.8
10.4	10.8	10.8	11.8
9.8	11.8	11.0	11.8
10.8	11.3	11.8	11.8
12.3	12.8	13.3	13.3
11.8	14.8	14.8	14.8
14.3	14.8	15.8	15.3
<i>Average, 10.08</i>	11.3	11.5	12.1

EAST END OF THE PIER.			
AT THE EDGE.	25 FEET DISTANCE.	50 FEET.	100 FEET.
14.3	14.8	16.3	14.8
5.8	10.8	15.8	15.8
13.3	14.8	14.8	15.3
14.8	15.3	15.5	15.3
<i>Average, 12.05</i>	13.7	15.6	15.3

SOUTH SIDE OF THE PIER, BEGINNING AT THE SHORE.

AT THE EDGE.	25 FEET DISTANCE.	50 FEET.	100 FEET.
8.8			
9.0	10.8	11.8	12.3
10.8	11.8	12.4	12.8
10.8	11.8	12.3	13.3
11.3	11.8	12.8	13.3
10.3	11.8	12.8	13.3
10.8	11.8	12.8	13.8
11.3	11.8	12.8	13.8
11.3	14.3	14.3	13.8
14.8	14.8	14.3	14.8
<i>Average, 10.9</i>	12.3	12.9	13.4

It will be noticed that Mr. Greeley's measurements are somewhat in excess of those made by Messrs. Tarbet and Grafton. But if we accept Mr. Greeley's measurements, it appears that a vessel of ordinary dimensions drawing more than 10 feet cannot be laid alongside the dock anywhere between the Thirteenth street pier and Sixteenth street. No vessel drawing more than $13\frac{1}{2}$ feet can approach within 50 feet of it.

On the north side of the Thirteenth street pier, the average depth of water is only 10.08 feet, and even at the end of the pier, on that side, there is not water of sufficient depth to float a vessel of ordinary length drawing over 12 feet. Vessels of ordinary dimensions, drawing more than 13 feet, cannot approach within 50 feet of the pier anywhere on that side.

At the easterly end of the pier, the average depth of water, according to Mr. Greeley's measurements, is 12.05 feet. The extreme depth noted is 14.08 feet, but the end of the pier is not accessible to vessels drawing over 13 feet, and vessels of 15 feet draft cannot approach within 50 feet of it.

On the south side of the pier, Mr. Greeley's soundings

range from 8.8 to 14.8 feet. The average depth is 10.9 feet. Only in one spot—at the extreme outer end—does the depth anywhere exceed 11.3 feet.

At the distance of 50 feet on that side the soundings range from 11.8 to 14.3 feet—the average depth being 12.9 feet. Only in two spots does the depth exceed 12.8 feet.

The results of the survey made by Messrs. Tarbet and Grafton are still more striking.

The soundings made by them in front of the dock between the Thirteenth street pier and Sixteenth street, range from 8.1 to 12.3 feet, the average depth being 10 feet. Those taken at 50 feet from the dock line range from 11.9 to 14 feet, the average depth being 12.3 feet. According to this survey, no vessel drawing more than 12 feet can approach to within 50 feet of the dock.

On the north side of the Thirteenth street pier, their soundings show an average depth of 9.16 feet, and there is nowhere a greater depth than 12.3 feet. At a distance of 50 feet from the dock, on that side, the soundings range from 9.2 to 13.9 feet, the average depth being 10.5 feet. Only in two spots does the depth exceed 10.3 feet.

At the end of the pier, their soundings show an average depth of 10.45 feet, the extreme depth being 12.2 feet. At a distance of 50 feet from the end, the depths noted are 14.2, 14.2, 13.4 and 14.2 feet.

On the south side of the pier, the soundings taken by them range from 6.9 to 12.2 feet. Only in one spot does the depth exceed 10.6 feet. At a distance of 50 feet from the pier, on that side, their soundings range from 9.8 to 13.8 feet. Only in two spots does the depth exceed 11.9 feet.

It appears from the testimony of Mr. Liljencrantz (Rec., 602-615) that he made a survey for the Government in May, 1878, for the purpose of locating the south-east breakwater afterwards constructed for the outer harbor. A map which he made, showing a large number of soundings taken at that time

in front of the shore, has been put in evidence by the complainants, marked "Complainants' Exhibit E." (Map on page 11, Book of Exhibits.) The space covered by the map is that part of the lake adjacent to the shore lying between the following described lines: A line 1,300 feet north of the center line of Twelfth street, extended, and parallel thereto, and a line about 1,850 feet south of the center line of Twelfth street, extended, and parallel thereto. The line last described marks the southerly end of the outer piling constructed by the Railroad Company in 1870, inscribed on the Morehouse Map "Built 1870."

Mr. Liljencrantz testifies (Rec., 608) that the plane to which the soundings on this map were referred is one foot and eight-tenths above city *datum*—that is to say, the depths noted are one foot and eight-tenths greater than they would have been if the surface of the water when the soundings were taken had coincided with the plane of reference known as Chicago city *datum*.

Three soundings are noted on this map along the U. S. dock line extended to Twelfth street, as follows: 14.5 feet, 15 feet, and 15.2 feet.

Along the line of the outer piling, south of Twelfth street, four soundings are noted: 12.2 feet, 16.3, 12.5, 13.8. The average depth indicated is 13.7 feet, or 11.9 feet below city *datum*.

Twenty-two soundings are noted within the area now occupied by the Thirteenth street pier, ranging from 14.8 to 16.3 feet. The average depth of water indicated is 15.1 feet, or 13.3 feet below city *datum*. Three soundings at or near the end of the pier indicate a depth of 15.5 feet, or 13.7 below city *datum*. It will be noticed that these soundings correspond very closely to those noted along the dock line north of Twelfth street. Nowhere on the site of the pier, or at the end or sides of the pier, is the water shown to have been deep enough to float a vessel of the ordinary dimensions drawing 15

feet. At a full stage of water, vessels of 16 feet 8 inches draft can pass the Washington street and La Salle street tunnels. According to the soundings noted on this map, a vessel of that draft could not approach from any direction to within 1,300 feet of the pier. A vessel drawing $15\frac{1}{2}$ feet could not get within 800 feet of it.

That map was made, as already stated, in 1878. Fourteen years afterwards another survey of the outer harbor was made for the Government, and the map of the survey, produced from Major Marshall's office and identified by him, has been put in evidence, marked "Defendant's Exhibit No. 10." (Map on page 29, Book of Exhibits.) It will be seen on comparing this map of 1892 with the map made in 1878, that very remarkable changes had occurred in the interim in the depth of the water in front of the Company's works between Twelfth and Sixteenth streets. The soundings noted on the later map are expressed in feet and tenths of a foot and have reference to Chicago city *datum*. Along the line of the outer piling between Twelfth and Sixteenth streets, the soundings noted are 8.6, 8.9, 9.3 and 12.1.

Two soundings are shown on the north side of the pier, at a distance approximately of 100 feet therefrom, of 12.6 and 12.5 respectively; one at the end of the pier, about 100 feet distant apparently, of 14.3; and two on the south side of the pier of 10.3 and 11.3.

On each of the maps a curved line is traced, marked "15 ft. curve," or "15 ft. contour." It was designed to show that the water outside or east of the line was 15 feet deep or upwards. It will be seen that on the map of 1878 this line approaches very close to the shore on the site of the Thirteenth street pier. The line is extremely sinuous in this part of its course, but it indicates that perhaps one-third of the space now occupied by the pier was then covered by water 15 feet deep, or 13.2 feet below city *datum*. On the map of 1892, the 15-foot contour line is removed nearly 2,000 feet east-

ward. It is not less than 1,000 feet distant from the end of the pier. From no direction, according to this map, can a vessel approach the end of the pier drawing more than 14 feet. On neither of the two sides of the pier is a sounding noted of more than 13 feet, within the distance of 1,000 feet.

The difference in the results shown by these two surveys is easily accounted for. One was made in May, 1878, and the other in 1892, fourteen years later.

Major Marshall states (Rec., 555-6) that no dredging had been done by the Government in the outer harbor since he had been the resident engineer in charge of the public works in the district—that is, as he testifies, since April 1, 1888. During this period the depth of the water in the outer harbor had gradually diminished. A great deal of sand, he says, is swept around the end of the north pier, at the mouth of the river, and carried into the outer harbor at the east entrance opposite Van Buren street, and is deposited there over the entire basin. Then, in times of high water caused by heavy rains or melting snow, a large quantity of silt, consisting principally of mud and sewage, is brought down by the river and finds its way into the basin through the north entrance, and forms there sedimentary deposits. Much sediment from this source is deposited at the mouth of the river, where its effects in choking up and clogging the channel, as related by Major Marshall, have been very striking. (Rec., 560.)

The effects wrought in this way in a very few years, in which no efforts are made to remove the accumulations, will be considerable. It is a matter of common knowledge that the river is kept in suitable condition for navigation only by constant dredging. Large sums are expended here by the Government in that kind of work, to say nothing of expenditures made for the same purpose by owners of private docks and by the city.

There is no direct evidence in the case to show what changes had occurred in the depth of the water in the lower part of the

outer harbor between 1878 and 1885; but the same forces were at work during that period that have been noticed by Major Marshall since 1888. There is, therefore, every reason to believe that when the Thirteenth street pier was built by the Railroad Company in 1885, the water was considerably more shallow in front of the Company's works between Twelfth and Sixteenth streets than in 1878. There is good reason to suppose—indeed, there is apparently no reason whatever to doubt—that the changes wrought between the surveys of 1878 and 1892 were gradual, and approximately equal in each half of the intervening period. But this is a point of minor importance, for it is to be borne in mind that the question to be determined does not turn upon the condition of things at any antecedent period. Evidence of such antecedent conditions have no relevancy, except as it may have some tendency to prove what the situation is at the present time.

The sketch of the Chicago harbor of June 30, 1879, which has been put in evidence as "Complainants' Exhibit Q." (Map on page 23 of Book of Exhibits), was attached as an exhibit to the annual report made by Captain Lydecker to the Chief of Engineers in 1879. (Rec., 930.) It throws no additional light upon the particular question now under consideration; and as the plane of reference to which the soundings noted upon the map were reduced is not given, it seems to have little or no value for any purpose connected with the case. Attention, however, may be properly called to the three soundings of 12.4, 13.4 and 12.9 feet shown on the east or outer line of Piers 1, 2 and 3, north of Randolph street, and to the three soundings of 14.4, 10.1 and 10.9 feet on the south line of those piers.

A large number of soundings in front of the shore between Twelfth and Fourteenth streets are noted on the Wheeler map, referred to in a preceding part of this brief. This map was drawn from a survey made in 1869, and it will be found, on comparing the soundings then made in the lower part of the

outer harbor, and south of it, with those noted on the Lydecker map of 1878, and reducing both to the same plane of reference, that there is no substantial difference in the results shown. It would serve no useful purpose, therefore, to go into any detailed examination of these figures noted on the Wheeler map. The only important or striking fact shown is, that there was no appreciable difference in the average depth of the water inside the U. S. dock line between Peck court and Twelfth street—a distance of 1,600 feet—and the depth over the site of the Thirteenth street pier.

The subject will not be pursued further than may be necessary to bring succinctly before the court some facts of recent occurrence, which have an important bearing upon the questions at issue in this investigation.

On the 21st of October, 1895, an ordinance was passed by the city council of Chicago, by which—after setting forth the fact that it had been decided and adjudged by the Circuit Court and by the Supreme Court in the present case, that the City of Chicago, as riparian owner of the land on the shore of the lake between the north line of Randolph street and the north line of block 23 in fractional section 15 addition to Chicago, and in virtue of authority to that end conferred by its charter, has the power to construct and keep in repair in front of said land, public landing places, wharves, docks, and levees, subject, however, to the authority of the State by legislation to prescribe the lines beyond which such structures may not be extended into the waters of the harbor that are navigable in fact, and to such supervision and control as the United States may rightfully exercise in and over said harbor; and after reciting that permission had been obtained from the Secretary of War, according to the form of the statute of the United States in such case made and provided, to fill in a portion of the outer harbor, as far out as the harbor line established by the Secretary of War, September 22, 1890, upon certain conditions therein set forth at length, it was provided:

"SECTION I. That for the purpose of providing suitable public landing places for steam vessels and other craft employed in navigation on Lake Michigan, the public grounds of the City of Chicago known as Lake Park, lying east of Michigan avenue and between the south line of Randolph street and the north line of Lake Park place (formerly known as Park Row) shall be extended east of the tracks and grounds of the Illinois Central Railroad Company, by inclosing and filling all that space in the shallow waters of Lake Michigan within the outer harbor, so-called, inclosed within the following boundary lines, to wit: the south line of Randolph street produced, on the north; the harbor line established by the Secretary of War, September 22, 1890, on the east; the south line of Lake Park place produced, on the south; and the present westerly shore line of the said outer harbor, on the west."

By subsequent sections authority was granted to the Illinois Central Railroad Company to enter upon and use for railroad purposes two small parcels of the land proposed to be filled in and reclaimed—one at the north end and the other at the south end of the tract—provided the Company should pay to the City the cost of filling them or should do the work of filling at its own expense.

The Railroad Company was also authorized to fill in and use for railroad purposes another small parcel of land south of Lake Park place, lying between the shore line and a straight line drawn from a point in the south line of Lake Park place produced easterly, 761 feet east of the west line of Michigan avenue, to point in the north line of the Illinois Central Railroad Company's Thirteenth street pier, 1,320 feet east of the west line of Michigan avenue.

These grants were made to the Railroad Company upon the following conditions:

1. That it should cause, at its own expense, that section of its road-bed lying between a line 200 feet north of and parallel to the north line of Peck Court projected and the

north line of Monroe street projected to be depressed as therein provided.

2. That it should build, at its own expense, a retaining wall of mason work, with suitable parapet walls or fences thereon, one on each side of its roadway and grounds between Randolph street and Lake Park place, to be raised to a certain specified height, and to be of sufficient strength and solidity to serve permanently the purpose for which the walls were to be erected.

3. That it should, at its own expense, cause viaducts to be constructed across its tracks and right of way in line with the projection eastward of four streets between Randolph street and Lake Park place, to be designated by the city, each to have a carriage-way and two footways; and also cause a footway to be constructed, at its own expense, across its tracks and right of way in the line of any other street or streets between Randolph street and Lake Park place, whenever directed so to do by the Commissioner of Public Works—the superstructure of each of said viaducts and footways to be of metal.

4. That it should, at its own cost, cause the Randolph street viaduct to be altered and extended so as to furnish access to the new made public ground east of the railroad, and should maintain the same at its own expense.

5. That it should, at its own expense, cause a substantial and tight bulkhead or retaining wall to be constructed along the eastern dock line, and also along the southerly line of the area to be inclosed and filled, as provided in the first section of the ordinance, conformably to the requirements of the Engineer Officer of the United States Army having supervision of the work.

6. That it should furnish and deliver on the ground material to the extent of 200,000 cubic yards, if so much should be needed for the purpose, to fill in the Lake Front Park lying between the railroad and Michigan avenue, so that the surface should have a regular slope westward from the top of the retaining wall to be erected on the westerly side of the railroad down to the grade of Michigan avenue.

7. That it should relinquish to the city the two filled projections into the lake beyond the east line of its right of way at the foot of Peck court and Harrison street, and also any land there may be east of that part of its right of way, 200 feet in width, which lies between the two lines drawn across said right of way, one 70 feet north of and parallel to the north line of Adams street produced, and the other 74 feet north of and parallel to the north line of Eldredge court produced, easterly.

8. That the work required to be done by the Railroad Company should be done in such manner as not to obstruct unnecessarily the operation of the railroad, and should be commenced as soon as practicable and be prosecuted with all due diligence to completion.

Sections 10 and 11 of the ordinance read as follows:

"SEC. 10. The said Railroad Company shall relinquish and surrender to the city any riparian or littoral rights it may have incident or appurtenant to the land owned or occupied by it on the shore of the lake between the north line of Lake Park place projected and the north line of Twelfth street projected, upon the condition, however, that the area covered by the water lying east or outside of the parcel of land which said Railroad Company is authorized to fill in and reclaim for its own use by the fourth section of this ordinance, and between the south line of Lake Park place projected east and said Railroad Company's Thirteenth street pier, shall never be filled in, or access thereto from the waters of the lake obstructed, without the consent of said Railroad Company, excepting only that the said Railroad Company shall, if the requisite permission therefor shall be obtained from the Secretary of War, construct at its own expense a substantial bulkhead or breakwater about fifty feet wide, from the north-east angle of said Thirteenth street pier, in a northerly direction, on the same line as the eastern edge of that pier, for the distance of two hundred and fifty (250) feet, provided, however, that nothing herein contained shall be held to affect the rights of the City of Chicago to

exercise its rights of eminent domain—the pier so constructed to be maintained by the said Railroad Company and reserved for its own exclusive use; and also a like substantial bulkhead or breakwater of the same width, from the south-east angle of the ground to be inclosed and filled, as provided in the first section of this ordinance, in a southerly direction, to a point one hundred (100) feet south of the south line of Lake Park place projected—the said last mentioned pier to be maintained by the City of Chicago and held for public use.

“SEC. 11. All the public works herein required to be done by the said Railroad Company shall be done under the supervision and to the satisfaction of the Commissioner of Public Works of the City of Chicago.”

Section 13 provides that upon the acceptance of the ordinance by the Railroad Company, a contract embodying its provisions and binding the parties to the faithful observance and performance thereof shall be executed, sealed and delivered by the proper officers of the city and the Railroad Company, which shall be of perpetual obligation. (Rec., 1017-1027.)

The ordinance was duly accepted by the Railroad Company October 28, 1895, and on the 20th of November following a contract embodying its provisions was executed by the City and the Company pursuant to the provisions of the 13th section, by which it was mutually covenanted and agreed that the provisions contained in said ordinance “shall be of binding and perpetual obligation between said contracting parties, each of them covenanting and agreeing with the other to stand to, abide by, make good, and faithfully observe and perform all and singular the concessions, grants, stipulations, conditions and undertakings therein contained, according to the true intent, meaning and interpretation thereof.” (Rec., 1028-1053.)

Permission has been given by the Secretary of War, officially, in due form, to fill in those portions of the outer harbor described in the ordinance. The permits (two of them) is-

sued by the Secretary have been put in evidence, and will be found in the record on pages 1055-1057. (For tracings accompanying the permits, see pages 31 and 32 of Book of Exhibits.)

Thus it is seen that the United States dock line established in 1890, extending from Randolph street south to the Thirteenth street pier, *has been definitively accepted by the city council* as the line to which constructions may be lawfully extended in the outer harbor. The ordinance provides for filling in the entire area west of that line and converting it into solid ground, as far south as the prolongation of the south line of Lake Park place, and the Railroad Company is authorized to erect a bulkhead or breakwater, fifty feet wide, from the northeast corner of the Thirteenth street pier, in a northerly direction, on the same line as the eastern edge of that pier, for the distance of 250 feet. The plan adopted by the City contemplates that a small inner harbor or recess shall be provided for vessels on the north side of the pier, where, sheltered by the pier and breakwater, they may lie in safety. The retention of the pier is an essential part of the plan. The removal of any part of it would defeat the object intended, and be alike injurious to the interests of the public and the Railroad Company.

The plan has been approved by the War Department; and it is also shown by the testimony of Major Marshall that the pier furnishes valuable protection to the outer harbor—it shelters it from the high waves caused by a south-east wind. If the pier were not there, he states that there would probably be a demand for one in approximately the same location, although it would not be built perhaps so wide or so substantial. (Rec., 892.)

It appears from the evidence, as has been previously stated, that before the pier was built the plans were submitted to the Chief of the U. S. Corps of Engineers and received his approval. Major Marshall testifies that the pier does not extend

quite out to the harbor line; and it has been shown by the Government charts that the water is too shallow at the end and sides of the structure to permit a vessel of 15 feet draft to approach within several hundred feet of it. Captain Prindiville testifies that in 1894 he tried to take a vessel of 13 or 14 feet draft through the south entrance of the outer harbor; but the vessel grounded, and he was obliged to pull her back and desist from the attempt. (Rec., 734.) There is no evidence that any vessel has ever been obstructed by the pier, or that any complaint has been made that it interferes with navigation. It is very seldom that a vessel is seen in that locality. The water is so shoal that vessels of ordinary size are compelled to avoid it. No witness called on either side has expressed or intimated an opinion that the pier or any other structure of the Railroad Company in that vicinity extends into the lake beyond the line of practical navigability. All who have been asked for an opinion on the subject say exactly the contrary. Attention has been previously called to the testimony of the expert witnesses on this point, and to the fact that no attempt has been made by the State to rebut it.

With respect to the dock south of the pier, it is proper to remind the court that the greater part of the outer breakwater between the pier and the center line of Sixteenth street extended (nearly two-thirds of it) was erected in 1870, and the rest of it, as it appears, in 1882. (Rec., 923.) In one or two storms that occurred afterwards, the top of the latter portion of the structure was wrenched off by the waves; and it appears from the testimony of Mr. Jeffery that the work of restoration was going on in May, 1887, when his deposition was taken. (Rec., 365.) No change was made in the position of the breakwater. So much of it as was below the surface of the water was not destroyed or displaced. The upper part, which had been demolished, was simply restored.

The question was put to one or two witnesses by counsel

for the State, whether they had ever seen a vessel in the Weldon slip, or one alongside the Thirteenth street pier. They might have seen, at a spot four or five hundred feet south-east of the pier, the wreck of a vessel sunk there in 1894, which remained for a long time partly visible above the water. (Rec., 939.) They could have seen no staunch vessel of the ordinary size employed in lake navigation at the pier or in the slip, for the very good reason that no vessel of that class could possibly get there. A great deal of dredging must be done to make those constructions and much the larger portion of the outer harbor available for commercial uses. No work has been done by the Government inside the harbor for nearly fifteen years. Appropriations have been made for dredging; but Major Marshall testifies that he declined to expend the money, because no facilities for using the harbor for commercial purposes had been provided, except the docks and wharves of the Illinois Central Railroad Company. (Rec., 555-6, 893.)

To the wharves north of Randolph street the statement just made is inapplicable. The evidence shows that they are accessible to vessels of the largest class employed in lake navigation, and that the facilities they afford for the transportation of passengers by steamers and for the shipment and delivery of heavy freight have been made very useful. (Rec., 349, 365-6, 374, 860, 874, 929.) It is said in the argument filed for the appellants (p. 5), that "the land north of Randolph street has never been used for lake commerce by the railroad company itself." If by this nothing more is meant than that the railroad company is not engaged in the business of lake transportation, the assertion will not be disputed, but we do not perceive the relevancy of it. If anything more is intended, there is no evidence to support it. That the wharves and slips constructed by the railroad company between Randolph street and the river have supplied an urgent public want, is a fact which admits of no denial; and that the pier at the

foot of Thirteenth street and the dock south of it will eventually subserve a similar useful purpose cannot be reasonably doubted. Everybody knows of the obstacles which have stood in the way of any extensive improvement of the outer harbor. For more than twenty years the title to the submerged land in the harbor was in dispute. That controversy was not settled until 1892. The location of the railroad between the public ground and the harbor was also a serious embarrassment; a dozen or more railroad tracks had to be crossed to obtain access to the lake. By the passage and acceptance of the ordinance which has been referred to, these hinderances have been overcome. A large part of the work provided for in the ordinance has been done already; and, as the plan was one devised by the city, and the Federal authorities have approved it, there is reason to believe, if there are no further complications, that the work of dredging will soon be resumed by the Government and the water in all parts of the outer harbor made deep enough to float vessels of the largest class now employed in lake navigation.

V.

CLOSING SUGGESTIONS.

It was decided by the Circuit Court on the first trial of this case—Mr. Justice HARLAN presiding, and Judge BLODGETT concurring in the opinion—that none of the works in question were encroachments on the public right of navigation. After the case was remanded and further proofs had been taken, another judge—Circuit Judge SHOWALTER—sitting in the same court, reached the same conclusion; and since then, on a careful review of the evidence, his findings have been approved by the Circuit Court of Appeals. That decision perhaps is not absolutely conclusive; but, according to what has been frequently declared to be the settled doctrine of this court, the concurrent decisions of two courts upon a question of fact will not

be disturbed unless it is manifest that some serious or important mistake has been made in the consideration of the evidence. The burden is always on the appellant to show the error and the proof of error must be plain and palpable. *The Carib Prince*, 170 U. S., 655; *Stuart v. Hayden*, 169 U. S., 1; *Baker v. Cummings*, 169 U. S., 189; *Compania La Flecha*, 168 U. S., 104; *Dravo v. Fabel*, 132 U. S., 487; *The Richmond*, 103 U. S., 540; *The Ship Marcellus*, 1 Black, 414; *Morewood v. Enequist*, 23 How., 491.

But it will be said in reply to this that the decision of the Court of Appeals was not unanimous. There was a dissenting opinion, on which much reliance is placed apparently by counsel for the appellants. Upon looking into that opinion it will be seen that the objections of the dissenting judge are based, mainly at least, upon the assumption that the former judgment of this court was erroneous, and, but for that judgment, that the right of the Railroad Company to any part of the land in question "has not even the merit of the celebrated stipulation for a pound of flesh." The court, it was said, is "dealing with a nakedly technical right, which exists only because it has been adjudged to exist," and "ought to favor the public title, which is just and clear, rather than the private claim which is technical." In the mind of the learned judge that was evidently the paramount consideration, and it affects his opinion noticeably on every question of fact in the case. Ought the decision of the Court of Appeals to have been controlled or influenced by that conception of judicial duty? It is certain that the question on which so positive an opinion was pronounced, was not in the case then before the court, and was not open to discussion by counsel. Of this, there can be no doubt: the final determination of the question whether the Railroad Company had a right to construct wharves and piers in the marginal waters of the lake rested with the Supreme Court. That tribunal had already passed upon and authoritatively determined

the question, and the judges of the Circuit Court and Circuit Court of Appeals were bound to accept that decision, and to treat it with entire respect.

We ought to say, in conclusion, that it is due to the learned judges concurring in the decree from which this appeal is taken, that appropriate acknowledgment should here be made for the thoughtful consideration they have given to the evidence and for the able and considerate treatment of the case shown in the opinion of the court. It will be found, as we confidently believe, on a careful examination of the record, that there can be no serious doubt that the decision was right; and we, therefore, respectfully ask that the decree may be affirmed.

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